# AN INVESTIGATION OF ACCESS TO THE EDUCATION SYSTEM AND THE ADMISSION PROCESSES FOR LEARNERS WITH AUTISM SPECTRUM DISORDER IN THE PROVINCE OF KWAZULU-NATAL, SOUTH AFRICA

By

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**Declaration**

Submitted in fulfilment / partial fulfilment of the requirements for the degree of

MA Educational Psychology, in the Graduate Programme in Applied Human Sciences,

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I, Nicola Sonja Buhr, declare that

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**Abstract**

Autism Spectrum Disorder (ASD) is a neurological condition that presents with persistent deficits in social communication and interaction across a variety of contexts. Worldwide, countries have implemented programmes to facilitate the admission of learners with ASD into special schools. In South Africa, Inclusive Education was implemented to facilitate the inclusion of vulnerable learners into special schools.

In the current study, the admission process and access to education for learners with ASD was investigated from an interpretive paradigm in which a qualitative approach was used. Special schools from each special school category were selected to represent a wide range of special schools in the province of KwaZulu-Natal, Department of Education. A survey instrument and semi-structured focus group interviews were conducted with the professional team involved in learner admission in selected special schools.

The results of the study indicate that there are a lack of resources and staffing in the special schools and the learner admission committee members in special schools still feel as if they are unable to cater for learners with ASD who require high levels of support. This affects the access to education for those learners with ASD. However, the results of the current study indicate that special schools have started developing their resources but they are still insufficient. There is also a lack of clarity with regard to the availability of consistent financial support from the Department of Education. Although there is space for learners with ASD in some special schools, the results of the study indicate that learner admission for most special schools is largely dependent on the learners meeting the criteria for admission and the available teaching and learning resources. Based on the findings of the study it is recommended that more focussed support from the department is required, especially in terms of resources. It seems that special schools do not have a consistent approach towards

the implementation of policy guidelines on the screening, identification, referral and support of learners. A more collaborative approach is required to align policy and practice of learner admission in various autistic units in educational settings.

# Chapter 1: Introduction

## Background and Outline of the Research Problem

ASD is an umbrella term for a specific group of neurodevelopmental disorders (Autism Speaks, 2014b). Typically, these disorders display difficulties with social interaction, communication and repetitive behaviours. The Diagnostic and Statistical Manual of Mental Disorders (5th Edition) (DSM 5), which was published in May 2013 by the American Psychiatric Association (APA), merged the various subtypes of autism into a single diagnosis of ASD (Autism Speaks, 2014b). This new diagnosis provides a more accurate platform from which to diagnose disorders related to autism and it is more medically and scientifically useful (APA, 2013a). The new diagnosis does not present any significant changes in the prevalence of the disorder (APA, 2013a). The latest prevalence figures released by the Centres for Disease Control and Prevention on the 27th March 2014 indicate that 1 in 68 individuals will be born with ASD (Autism Speaks, 2014a).

Access to education and admission into an educational programme for learners with ASD is increasingly becoming a concern in South Africa. Lack of access to education for learners with ASD is an international phenomenon (Special Needs Adapted Program, 2012). Various programmes have been designed in different countries to facilitate the admission of learners with ASD into schools. This problem has become more critical, especially in South Africa, as statistical analysis shows that the number of learners born with ASD in South Africa has increased by over 500% in the last five years (Special Needs Adapted Program, 2012), yet the resources needed to accommodate the needs of these learners within the school system are inadequate. Only 0.1% of learners with ASD are in effective educational settings (Claire Allen, personal communication, February 14, 2013). The White Paper 6 (WP6) on special needs education policy outlines the process of identifying, assessing and enrolling

learners into special needs schools (Department of Education, 2001) but the guidelines provided do not align with the resources available at the school level.

Educators often have to improvise and make necessary adjustments in the admission and support of learners with ASD. Research shows that 48% of learners diagnosed with ASD can eventually be put into mainstream schools if they receive intervention early enough (SNAP, 2012). This places early intervention and assessment of learners at a high priority level. The admission of these learners into school programmes that cater for their specific needs is therefore of vital importance to minimise the impact that the disorder will have on their lives.

### Problem Statement

Following the release of WP6, there are still challenges with aligning policy and practice in special schools (Stofile, 2008). Inclusive education holds that special schools should become decategorised and serve as resource centres for other schools (Department of Education, 2007). Autism is becoming more prominent in our society and special schools will need to be able to cater for the needs of learners with ASD. There are numerous challenges that special schools are facing with the implementation of policies. Through creating an awareness of the challenges that special schools face when determining whether they can provide access to education and admit learners with ASD, these challenges can be addressed.

## Research Objectives: Broader Issues Investigated

The objectives of this study are:

1. To determine the admission criteria used by special schools in the province of KwaZulu-Natal in the admission of learners with symptoms of ASD.

2. To investigate the admission process that special schools use to admit learners with ASD within the education system in the province of KwaZulu-Natal.

3. To determine the intervention strategies offered by the special schools in the province of KwaZulu-Natal to support learners with ASD.

4. To investigate the kind of support that special schools need in order for them to meet the needs of learners with ASD.

**Research Problems and Key Questions**

- What forms part of the admission criteria for learners with ASD into a special school in the province of KwaZulu-Natal?

- What process is followed in the admission of a learner with ASD into a special school in the province of KwaZulu-Natal?

- What intervention strategies are used to support learners with ASD in special schools in the province of KwaZulu Natal?

- What provisions do special schools have in place as part of their intervention strategies for learners with ASD?

- What recommendations can be made to provide support and education to learners with ASD in special schools in the province of KwaZulu Natal?

**Purpose and Focus of the Study**

The purpose of this research is to identify the gaps and similarities across the various special schools sampled as well as difficulties that they have in common in providing access for learners with ASD. In particular, access to resources at these special schools is

investigated as this has an impact on the quality of education and support that special schools can provide for learners with ASD. In order to achieve this, the admission policies and criteria were investigated to determine if there is adequate access for learners with ASD. The purpose was also to determine what level of support the special schools sampled are able to provide learners with ASD. Ultimately the findings of the study can provide the KZN Department of Education with information on the difficulties in providing access to education for learners with ASD and the admission process which is followed. This should in turn lead to more focussed support from the KZN Department of Education for learners with ASD.

**Rationale**

There is a gap in the literature regarding the current status of ASD in South African schools. The survey undertaken by the KwaZulu-Natal Department of Education and MIET Africa on the state of special schools in the province of KwaZulu-Natal suggested that a qualitative study is needed to get a more in-depth understanding of the topic of ASD in South African schools as that study failed to make an in-depth analysis due to time constraints (KZN Department of Education & MIET Africa, 2011). A study by Springer, van Toorn, Laughton and Kidd (2013) in the Western Cape Province found that there is a lack of knowledge on ASD in Africa as there are very few studies published on ASD in Africa. This study also determined that most of the learners who attended the clinic in the study required continued support in terms of medical support, educational support and social support (Springer et al., 2013). Bakara and Munir (2010) also found that the situation regarding ASD in Africa lacks clarity and requires further studies.

The declassification of special schools based on the WP6 on Inclusive Education (Department of Education, 2001) into resource centres means that all special schools have to be able to cater for all learners regardless of disability. However, this is dependent on the

support programmes they are able to provide. These support programmes are dependent on the resources, facilities, staffing, physical structures etc., that the special schools are able to provide (Special Needs Adapted Programme, 2012). As such, even though special schools have been declassified, there are still many factors which impinge on a learner with ASD having access to a school where they are able to receive an education. The Special Needs Adapted Programme (2012) indicates that resources are still inadequate.

The number of learners with ASD is increasing each year. With Inclusive Education, the schooling system is changing and special schools have been decategorised. As resource centres, special schools are required to cater for learners of all disabilities according to what they are able to provide. This includes accommodating learners with ASD into special schools. This study is thus an investigative study to determine what is currently being undertaken in special schools and where they are at with regard to implementing strategies to provide access to education for learners with ASD. Secondly, the process in which admission into special schools takes place is investigated.

**Conclusion**

This chapter presented an introduction into the current study as well as the objectives and rationale for the study. The next chapter presents an overview of literature relating to ASD in general and pays attention to issues relating to special schools in South Africa. This is followed by a review of the research design and methodology which was used in the presentation of the study. Ethical considerations that were taken into account are also presented in this chapter. The fourth chapter presents the results of the current study as obtained through the questionnaires and the semi-structured group interviews. Chapter 5 follows with a discussion based on the findings. The objectives of the research study are evaluated in terms of the findings obtained in the current study. This chapter includes

recommendations made as a result of the findings of the current study as well as recommendations for future research.

# Chapter 2: Literature Review

## Introduction

The Centre for Disease Control and Prevention (CDC) (2012) in the United States shows a systematic increase in the prevalence of ASD over the years. In South Africa, schools such as the Star Academy of Learning in Johannesburg receive at least ten emails or phone calls regarding newly diagnosed or possible diagnoses of ASD a week (Bateman, 2013). In the Western Cape, 10 learners are diagnosed with ASD between the Red Cross Children's Hospital, Lentegeur and Tygerberg Hospitals every week (Bateman, 2013). Getting accurate statistics on ASD in South Africa is difficult. It is estimated that approximately 135 000 learners with ASD in South Africa are not getting the education that they need (Bateman, 2013).

If learners receive the correct diagnosis, then they will be able to be admitted into an educational programme that is suitable for their needs and where they will receive intervention. Internationally, only developmental paediatricians, paediatric neurologists, child psychiatrists and informed child psychologists may make a diagnosis of ASD (Autism South Africa, 2012a). South Africa has very limited resources when it comes to ASD so it is suggested that if an individual is displaying strong evidence for the presence of ASD, treatment should be started as soon as possible (Bateman, 2013). While undergoing treatment, they can then seek out a trained clinician for an official diagnosis (Autism South Africa, 2012a). This will help prevent the delay in learners receiving appropriate intervention.

## Symptomology of ASD

ASD is a heterogeneous neurodevelopmental disorder that presents in a variety of ways such as intellectual delays, language and communication difficulties and social difficulties (Autism South Africa, 2012b). Neurodevelopmental disorders typically have an

onset in the developmental period and are usually characterised by deficits in personal, social, academic, or occupational functioning. They frequently co-occur with other neurodevelopmental disorders (APA, 2013b). Individuals with developmental disabilities are unable to communicate with others, relate to others and care for themselves (Fisch, Simensen & Schroer, 2002). These symptoms are typically present throughout their lives with very few individuals with ASD leading successful independent lives. In addition to social and communication impairments, individuals with ASD show a lack of variability in imagination, interest and behaviour. These impairments are typically evident in relation to the normal population from the age of two (Nordin & Gillberg, 1998).

**Diagnostic and Statistical Manual for Mental Disorders Fifth Edition (DSM-V)**

According to the APA (2013b), individuals who previously received a diagnosis of early infantile autism, childhood autism, Kanner's autism, high functioning autism, atypical autism, pervasive developmental disorder not otherwise specified, childhood disintegrative disorder and Asperger's disorder in the DSM-IV-TR (Diagnostic and Statistical Manual of Mental Disorders, 4th Edition, Text Revision), should now be given a diagnosis of ASD. In the DSM-V, these disorders now all fall under the term ASD (APA, 2013b).

Individuals with ASD display certain patterns of behaviour, have specific interests and engage in activities that are restrictive and repetitive. Their interests may be highly restricted and fixated and be of an intense nature. They may also be hyper-hyporeactive to sensory input or display an unusual interest in a sensory aspect of the environment (APA, 2013b). They may also be very persistent in their need for sameness and display an inflexible adherence to routines or ritualized patterns of nonverbal or verbal behaviour (APA, 2013b).

The level of severity is different for each child and this should be taken into consideration when making decisions regarding the admission of a learner with ASD into a special school. The current severity should be specified based on the social communication

impairments and restricted patterns of behaviour of the individual according to the following three levels; level 3: requiring very substantial support, level 2: requiring substantial support and level 1: requiring support (APA, 2013b).

Symptoms should also be present in the early developmental period and cause clinically significant impairment in social, occupational, or other important areas of current functioning. These symptoms should also not be better accounted for by an intellectual disability or global developmental delay (APA, 2013b).

Environmental, genetic and physiological factors can increase the risk of ASD. Environmental risk factors include older parents, a low birth weight or foetal exposure to valproate. Genetic and physiological risk factors appear to be polygenic with multitudes of genetic loci all contributing to a small extent (APA, 2013b).

Making a diagnosis of ASD is also complicated because symptoms change with development and individuals compensate for deficits in various ways. Historical information must be obtained and a significant impairment in social and behavioural patterns of behaviour as prescribed in the diagnostic criteria should be met (APA, 2013b). There are numerous differential diagnoses that need to be considered prior to making a diagnosis of ASD.

Between the ages of one and four, individuals with Rett's syndrome may present with a disruption in social skills. After this period, individuals with Rett's syndrome show an improvement in their communication abilities whereas individuals with ASD do not. Selective mutism is distinguishable from ASD as communication skills with selective mutism are only impaired in certain contexts and early development is not affected. Social reciprocity is not impaired and behavioural patterns do not indicate any signs of repetitive or restricted behaviours in selective mutism (APA, 2013b). Language disorders and social (pragmatic communication) disorders present with social impairments but not with abnormal nonverbal communication difficulties or signs of repetitive or restricted behaviours. They are more

likely to receive a diagnosis of a language disorder but the history of the individual needs to be looked at carefully, especially behavioural patterns. Individuals with an intellectual disability without ASD present with no evident difference between their social communication abilities and other intellectual skills such as the development of nonverbal skills (APA, 2013b) which are found in individuals with ASD. Stereotypic movement disorders are only classified as an additional diagnosis if these movements lead to self-injury and require treatment separately to ASD. Hyperactivity and difficulties focussing are common features of ASD (APA, 2013b). When these features exceed what is typically expected with another individual of the same mental age, a diagnosis of ADHD should be considered rather than ASD. Schizophrenia is distinguished from ASD by the presence of hallucinations and delusions that occur in schizophrenia (APA, 2013b).

**Comorbid Conditions Associated with ASD**

Many learners are at risk for being misdiagnosed with other psychiatric disorders or of receiving no diagnosis of ASD (Solomon, 2010). Classical autism is often first recognized when the learner is in preschool. There is frequently an overlap of symptoms between ASD, communication disorders and global mental retardation during the preschool years. This increases the challenges for an accurate diagnosis as certain behaviours only occur at certain levels of childhood development (Nordin & Gillberg, 1998).

According to Simonoff, Pickles, Charman, Chandler, Loucas and Baird (2008), there is a 70% likelihood of an individual with ASD having one comorbid condition and a 41% likelihood of having two or more comorbid conditions (as cited in Brentani et al., 2013). ASD commonly occurs with intellectual impairment. For a comorbid diagnosis of ASD and intellectual disability, the social communication abilities of the individual should be below what is expected according to the general level of development of the individual (APA, 2013b). Other comorbid conditions include structural language disorder, developmental

communication disorders, anxiety disorders, depressive disorders, specific learning difficulties and developmental coordination disorders (APA, 2013b).

Learners with ASD often have a comorbid condition of epilepsy. In 20-30% of learners with ASD, epilepsy develops before the age of 30 (Nordin & Gillberg, 1998). ASD is often not diagnosed in epilepsy because the physical symptoms of epilepsy are usually more prominent than the symptoms of ASD. When epilepsy is associated with ASD, there is greater intellectual disability and lower verbal ability (APA, 2013b). Individuals with ASD often display extremes in preferences for certain types of food and have elevated sensory sensitivity. This is also commonly found in individuals with avoidant-restrictive food intake disorder. Avoidant-restrictive food intake disorder should only be concurrently diagnosed if the criteria for both are met (APA, 2013b).

Early genetic studies showed that a large proportion of individuals with ASD also exhibited a Fragile X (FRAXA) mutation (Fisch et al., 2002). Individuals with Fragile X syndrome exhibit many behavioural patterns that are similar to those found in individuals with ASD. Both disorders are developmental disorders that exhibit mild to moderate intellectual impairment, learning difficulties, difficulties with adaptive behaviour and a delay in speech and language development (U.S. National Library of Medicine, 2012). In order to rule out a diagnosis of FRAXA in individuals with ASD, the development of the disorder should be investigated. IQ scores in individuals with ASD tend to stabilise as the individual gets older and with FRAXA they continue to decline. Individuals with FRAXA and ASD both show declines in adaptive behaviour skills but individuals with ASD are significantly more impaired in this area, as well as with their ability to communicate and socialise (Fisch et al., 2002). Knowing whether an individual has ASD, Fragile X or both is important as it is vital that their education includes cognitive tasks aimed at developing their problem solving

ability as well as teaching them adaptive skills so that they will be able to become as independent as possible (Fisch et al., 2002).

Learners with both ASD and severe mental retardation can often only be diagnosed between the age of four and five as a differential diagnosis requires that a diagnosis takes into account behaviours that only develop when certain age related developmental levels are achieved. Adults with ASD and mental retardation can be differentiated from adults with only mental retardation by a higher incidence of ritualistic behaviours, need for sameness, social isolation, odd behaviours and difficulties in keeping themselves entertained (Nordin & Gillberg, 1998).

**Origins of Autism**

Autism developed as a category from two separate studies. In 1943, Leo Kanner, an American psychiatrist published an article about the "Autistic Disturbances of Affective Contact" (Solomon, 2010). His case study described learners with behavioural difficulties that were significantly different to any other reported cases. He described these learners as detached and inaccessible; living in their own world where they cannot be reached (Solomon, 2010).

In 1944, Hans Asperger published a doctoral dissertation on "Autistic Psychopathy in Childhood" (Solomon, 2010). His definition included children that displayed marked challenges in behaviour to children with marginal challenges. He viewed autism as a personality disorder and believed these children had the potential to adapt to societal demands. He recognised that in order for these children to reach their potential, special education and guidance was of vital importance (Solomon, 2010).

**Theories and Research on Autism Spectrum Disorders**

ASD research predominantly focuses around two areas: biomedical and social science research (Solomon, 2010). Three core theories of the 1990's that occurred across the disciplines were the theory of mind, the theory of weak central coherence and the theory of impairment in executive function (Solomon, 2010).

Biomedical research views ASD as a neurodevelopmental disorder. The focus is on the symptoms, aetiology, prevalence, genetics, heterogeneity and developmental trajectories of the disorder (Solomon, 2010). Scientific and clinical intervention is utilised to assess ASD through identifying neuroanatomic structures and neurobiological, cognitive and sociocommunicative processes evident in ASD. This research is technologically mediated and explains autistic systems using a variety of theories. These theories find that individuals with ASD display atypical brain development and lateralization followed by arrested brain development in later childhood (Solomon, 2010). A study performed by Schumann et al., (2010) on the cerebral cortical development in learners with ASD, showed that the cerebrum does undergo an abnormal growth trajectory where overgrowth is evident from two and a half years of age. This is also the time that symptoms of ASD typically first appear. The study confirmed that early brain overgrowth occurs in learners with ASD and that an abnormal brain development continues through early childhood with individuals with ASD (Schumann, 2010).

Baron-Cohen's theory of mind attempts to explain the language usage and nonverbal social behaviour exhibited by autistic individuals (Solomon, 2010). This theory hypothesises that individuals with ASD display an impairment in the development of theory of mind resulting in difficulties understanding that other people have different intentions, desires and beliefs (Klinger & Renner, 2000). The theory of executive function impairment in ASD implies that an individual with ASD has an impairment in their ability to plan, carry out

actions and achieve goals that have been set (Solomon, 2010). Other neurobiological theories believe that the amygdala plays a role in the fear and anxiety experienced by individuals (Solomon, 2010). The theory of mirror neuron system dysfunction in ASD suggests that aspects of development where the human mirror neuron system is involved, is impaired. These aspects include language, imitation, empathy and social learning ability (Solomon, 2010). This will account for many of the difficulties experienced by learners with ASD. The functioning of the human mirror neuron system is not yet fully understood (Solomon, 2010).

The theory of weak central coherence developed by Uta Frith in the late 1980's argues that humans are inherently able to see meaning and structure, form coherence and generalise across a variety of contexts. Subsequently, individuals with ASD will find it difficult to process information out of context and will be very focussed on specific details (Solomon, 2010).

Social science research is ethnographically informed and focuses on the social construction of ASD in relation to how the concept of ASD is transmitted and maintained in a culture. ASD is viewed from a personal, family/community and social group experience (Solomon, 2010). Assessment of ASD takes into account the social interactions, narratives and engagement with other individuals at home and in other environments. This has its basis in Bronfenbrenner's bioecological systems theory (Solomon, 2010).

Some research follows an interdisciplinary ethnographic approach which takes into account both the neurobiological functioning of the individual as well as how they engage in everyday activities (Solomon, 2010). When looked at in terms of Bronfenbrenner's ecological systems theory (Bronfenbrenner, 1994), it is evident that there are both biological and psychosocial factors that have an impact on the role that ASD places on a learner and how the various theories are now following a more interdisciplinary approach, linking the various approaches together. Bronfenbrenner (1994) looks at how various systems are

interlinked within an individual. Bronfenbrenner's ecological systems theory attempts to understand human development within the system in which it occurs (Bronfenbrenner, 1994). A prominent feature of his ecological model is the reconceptualization of the environment from the individual's perspective (Bronfenbrenner, 1994). Bronfenbrenner uses a hierarchy of systems: a microsystem, mesosystem, exosystem and macrosystem (Sontag, 1996). Bronfenbrenner's model provides a framework which can be used for studying learners with disabilities as a learner's school performance is affected by multiple settings (Sontag, 1996).

A study by Ravindran and Myers (2011) looked at cultural influences on perceptions of ASD in terms of Bronfenbrenner's ecological model. They found that treatment programmes should incorporate both biomedical and cultural practices. Culture influences which intervention strategies parents will seek as well as the course of the disorder; whether it is a lifelong disability or whether it will improve over time (Ravindran & Myers, 2011). It is therefore important to understand the influence of culture on the perceptions of ASD.

**The role of genetics in ASD.**

A recent study published in July, 2014 by Bernier, Golzio, Xiong, Stessman, Coe, Penn, et al., found that the CHD8 gene mutation is linked to a certain subtype of autism. This study found that individuals with the CHD8 mutation were likely to have autism marked by gastrointestinal disorders, marcrocephaly and distinct faces (Bernier et al., 2014). Another study led by James P. Noonan also found that the CHD8 gene is strongly linked to autism. Genetic evidence has made it possible to identify regulatory genes which are important for identifying autism risk (Borthwick, 2015). Two further studies published in the journal Nature (see doi:10.1038/nature13908 and doi:10.1038/nature13772) tied more than 100 gene mutations to autism. Prior to these studies, only 11 autism genes had been identified according to Stephen Sanders, an assistant professor of psychiatry at the University of California San Francisco and a co-author of the two studies (Farley, 2014).

**Impact of ASD on the Family**

Parents go through a period of intense stress at the onset of ASD in their child. This stress is largely due to the child's difficulties becoming more prominent, experiencing difficulties obtaining an accurate diagnosis and difficulties in finding an appropriate treatment programme. Once a child is diagnosed and in treatment, this initial period of stress ends (Gray, 2002). It is therefore vital for the healthy functioning of the family system to ensure that the assessment procedures followed for admitting a learner into the correct school environment and programme are both effective and aim at reducing the stress experienced by parents/caregivers (Gray, 2002).

The health and well-being of parents and siblings is impacted by a child with ASD. Research indicates that family members experience high levels of emotional distress; including anxiety, depression and anger (Gray, 2002). Some parents also reported physical health problems due to stress. Others experienced difficulties in their careers as a result of their child's ASD. Parents with aggressive or severely obsessive children with ASD displayed the highest levels of distress (Gray, 2002). Ślifirczyk, Krajewska-Kułak, Brayer and Maciorkowska (2013) found that the presence of a child with a disability has a multidimensional influence on the functioning of a family and is a major source of stress for the family. Difficulties experienced by parents/caregivers tend to arise during adolescence when the child with ASD displays increasing physical and sexual maturity and an increase in the number of seizures in some cases. Parental emotional exhaustion is also common during the adolescent stage. Adulthood presents further difficulties as the parents have to find suitable supervised living and working arrangements for their adult child with ASD as well as the hope that their child will live a "near normal" life (Gray, 2002). Nealy, O'Hare, Powers and Swick (2012, p.188) reported that common stressors experienced by families with a child diagnosed with ASD include "a sense of loss and depression, decreased opportunities for

family vacations and fun outings, changes in relationships resulting in loss of social support and personal and professional sacrifices."

On a social front, parents experienced difficulties with coping and the stigma attached to ASD. Some of the most difficult problems they experienced were weak language skills, inappropriate and embarrassing public behaviour, disruption and destruction of the home environment, violent and aggressive behaviour, inappropriate sexual expression and obsessions (Gray, 2002). A child with ASD also impacts the physical and social aspects of family life and often results in families having to change their plans (Ślifirczyk et al., 2013)

Due to the stressful environment that parents and siblings are exposed to, resources for coping need to be provided to them. Coping strategies that were determined to be effective included treatment services for children with ASD, support from family members, religion, social withdrawal and individual activity (Gray, 2002). Adapting to the needs of a child with ASD is a lifelong process and requires the family to adapt at various levels and throughout the various developmental stages (Van Ingen, Moore & Fuemmeler, 2008).

Parents play a fundamental role in the admission process and the provision of education for their children with ASD. Treatment plans should be developed in collaboration with parents and the providers of care (Van Ingen et al., 2008). Parental involvement with children with disabilities falls along a continuum of helpfulness with the individuals or groups that provide care to their children. The type of parenting has an impact on the long-term course of treatment and development for children with disabilities (Van Ingen et al., 2008).

For a successful collaboration to occur, parents should become a part of the inter-disciplinary team that is in charge of the education and care of their child. By being a part of this team, parents are able to be a part of the planning of healthy treatment options for their children. According to Van Ingen et al. (2008), healthy parenting styles typically possess

good relationship skills and they have an appreciation of the mental health professionals involved in the care of their child. They use their skills to support the providers and they have a flexible approach which enables them to learn from the professionals and utilize these skills in the home environment.

## ASD in South Africa

### Statistics and trends.

Lack of access to education for learners with ASD is an international phenomenon (Special Needs Adapted Program, 2012). Various programmes have been designed in different countries to facilitate the admission of learners with ASD into schools. As was stated by SNAP (2012), there is large increase in the number of learners born with ASD in South Africa and schools do not have the resources to accommodate them. According to Jill Stacy of Autism South Africa, only 0.1% of learners with ASD are in effective educational settings (Claire Allen, personal communication, February 14, 2013). In March 2012, it was determined that 1 in 88 learners in South Africa will develop ASD (Autism South Africa, 2012a).

Bakara and Munir (2010) speak about two studies which indicated that knowledge and awareness of ASD in Africa is still low and that it is essential to increase the level of knowledge and awareness of ASD. An increase in knowledge would increase the likelihood that symptoms are recognised early which would ensure that learners are able to be assessed and placed into the correct school environment as soon as possible (Bakare & Munir, 2010). The special schools survey report also found that training was required on the admission and enrolment of learners that require high levels of support (KZN Department of Education & MIET Africa, 2011). In a study undertaken by Ladbrook (2009) on the "Challenges experienced by educators in the implementation of Inclusive Education in primary schools in South Africa," it was found that the network of support provided for educators by the school

based support teams (SBST) and the district based support teams (DBST) was still inadequate and ineffective. The study also found that many educators in the South African context felt that they did not have the knowledge or skills to adapt to Inclusive Education (Ladbrook, 2009).

More information is needed on the current situation of ASD in South African schools and whether these learners have access to schools. According to the national strategy on screening, identification, assessment and support, there is no consistent approach to screening, identifying and referring learners to special schools and the assessment practices used do not outline the nature and level of support that is required for these learners (Department of Education, 2008).

An awareness of ASD is also lacking in the medical fraternity (Bateman, 2013). This affects an accurate diagnosis of ASD and subsequently these learners do not receive intervention at the earliest possible time. Bateman (2013) further mentions how not enough training on developmental disorders is received during medical training and this affects the awareness of those making the diagnosis on how to diagnose ASD. The earlier a diagnosis is made, the sooner intervention can begin and the sooner a learner with ASD can be placed in an appropriate school.

**History of learning disabilities in the South African context.**

With the end of Apartheid in 1994, post-apartheid policy development and making took place and is illustrated in the Education White Papers (1 to 6). In 1996, special needs and support services in education and training in South Africa was investigated by the Ministry of Education (Department of Education, 2001). In order to address some of these inequalities, the WP6 on Inclusive Education was developed in 2001 to build an inclusive education and training system for special needs education. As part of the inclusive system, special schools are expected to accommodate learners with severe disabilities in an improved

special school system. WP6 also proposes an overhauling of the identification, assessment and enrolment of learners in special schools to include the role played by educators, lecturers and parents. The role of special schools in the community was also changed so that they functioned as resource centres for neighbouring schools, full-service schools and colleges (Department of Education, 2005b).

WP6 acknowledges that all children can learn and need support regardless of their differences. It acknowledges that the needs of learners are different and that educators will have to adapt and change attitudes, teaching methods, behaviour, the teaching curriculum and the learning environment in order to meet the needs of learners (Department of Education, 2001). The purpose of this is to maximize the ability of a learner to participate in their own education regardless of their barriers to learning (Department of Education, 2005b). WP6 outlines the process that should be followed to move away from segregation according to disability and emphasises access and provision of education based on the intensity of support needed to overcome the impact of the disability (Department of Education, 2005b).

Another aspect of the South African education system which needs to be considered are the historical issues which could hinder the admission criteria and access to education for learners diagnosed with ASD. The manner in which special needs were addressed in the past could still be influencing the admission policies today. Moloi (2007) conducted a study that focused on the overview of education management in South Africa since 1994. In his study, he points out other problems that face schools in South Africa and on the transformation that is needed in schools. The study on education for children with disabilities in Southern African gives an informative account on education for learners with disabilities from both a historical and current perspective (see The Secretariat of the African Decade, 2012).

**South African education policies and legislation on children's rights.**

South African policy and legislation ensures that all learners, regardless of disability, have access to education. The "Convention on the Rights of Persons with Disabilities" held by the South African government in 2007 recognised the right to education for all persons with disabilities at all levels of education without discrimination (Department of Education, 2010a).

Chapter 2, Section 3 (1) of the South African Schools Act of 1996 states that "Subject to this Act and any applicable provincial law, every parent must cause every learner for whom he or she is responsible to attend a school from the first school day of the year in which such learner reaches the age of seven years until the last school day of the year in which such learner reaches the age of fifteen years or the ninth grade, whichever occurs first" (Republic of South Africa, 1996). This act through to section five also states that public schools must admit learners and provide them with the education that they require without discriminating against them in any way. When placing a child with special needs into a school, the rights and wishes of the parents and the learner need to be taken into account when making decisions and no test may be administered in relation to the admission of the learner (Republic of South Africa, 1996). In Section 12, the act states that learners with special needs in ordinary schools must be provided with relevant educational support services and that all measures should be undertaken by the school to ensure that they are accessible for disabled individuals (Department of Education, 2010a).

According to the Constitution of South Africa (1996), Section 29 (1), "Everyone has the right - *(a)* to a basic education, including adult basic education; and *(b)* to further education, which the state, through reasonable measures, must make progressively available and accessible." It is the responsibility of the caregivers to ensure that children attend school

on a regular basis and if they are faced with any difficulties, they are responsible for negotiating this with the school's management committee (Department of Education, 2005b).

Educators often have to improvise and make necessary adjustments in the admission and support of learners with ASD. Research shows that 48 % of learners diagnosed with ASD can eventually be put into mainstream schools if they receive intervention early enough (SNAP, 2012). This places early intervention and assessment of learners at a high priority level. The admission of these learners into school programmes that cater for their specific needs is therefore of vital importance to minimise the impact that the disorder will have on their lives.

The National Strategy for Screening, Identification, Assessment and Support (SIAS) provides a framework for standardising the procedures used to identify, assess and provide programmes (support) to vulnerable learners or learners experiencing barriers to learning (Department of Education, 2014). This policy is in line with WP6 and is one of the procedures involved in the transformation of South Africa's education system into an inclusive system of education (Department of Education, 2014). It provides guidelines on how learners should be enrolled in special schools and identifies a learner's needs in both a home and school context so that the level and extent of the support that should be provided to the learner can be determined (Department of Education, 2014).

**Assessment of ASD.**

In the South African context, it is important to view ASD from a transdisciplinary approach. Assessments should include cognitive, speech and language, hearing and psychological assessments to ensure that learners with ASD are placed in educational settings that meet their level of needs (Mubaiwa, 2008). There is currently no medical test to diagnose ASD. Therefore, the behaviour and development of a learner are used to make a diagnosis. A reliable diagnosis can be made at the age of two which enables a learner to receive

intervention from an early age (Centres for Disease Control and Prevention, 2014). Two steps are followed in this process. The first step is developmental screening to determine if there are developmental delays or disabilities. Specific additional screening is performed if a learner has any risk factors for ASD. The second step is a comprehensive diagnostic evaluation (Centres for Disease Control and Prevention, 2014). This evaluation includes an evaluation of the learner's behaviour and development, an interview with the caregivers, hearing and vision screening, genetic, neurological and other medical testing. These evaluations can be performed by developmental paediatricians, child neurologists, child psychologists or psychiatrists (Centres for Disease Control and Prevention, 2014). A standardised assessment and admission procedure is needed as a guideline for special schools so that consistency is developed in providing support to learners with ASD.

A diagnosis is most valid when it is based on multiple sources of information such as the clinician's observations, history and a self-report when possible. The impairments in social and communication difficulties have to be pervasive and sustained (Mubaiwa, 2008).

ASD is five times more prominent in males than in females but females show more severe pathology (Solomon, 2010). On the lower end of the spectrum, it occurs at a ratio of two males for every female. At the high functioning side of the spectrum, the ratio is 15 males to one female (Solomon, 2010). Statistics from the Centres for Disease Control and Prevention places the prevalence of ASD at 1 in 68 individuals. Of these, 1 in 42 are boys and 1 in 189 are girls (Autism Speaks, 2014a).

**Barriers to learning and development.**

According to WP6, barriers to learning and development can be combated by transforming the entire educational system. In the long term, this transformation was set to take 20 years and includes the conversion of 380 special schools into resource centres, the conversion of 500 primary schools into full-service schools, building DBST to assist the

various types of schools and introducing the new system to mainstream education. It also targets the early identification of learners with diverse needs (Department of Education, 2005b). Revisions to the procedures to identify, assess and enrol learners in special schools were made and focus was placed on learners who were not in the education system yet and who need support (Department of Education, 2005b).

Barriers to learning can be intrinsic factors related to the learner that impact on their ability to learn such as impairments, psycho-social problems, differences in ability levels, certain life experiences or socio-economic deprivation (Department of Education, 2005b). External barriers are extrinsic barriers that are related to the learners' environment e.g. stereotyping, inflexible teaching methods and practices, inappropriate language or methods of communication, inaccessible or unsafe environments, lack of support from caregivers or the school etc. (Department of Education, 2005b). Barriers involve anything that hinder an individual from engaging in the process of learning. Intrinsic factors relate to factors within the individual and which are related to an individual's perception, motivation and emotion. Extrinsic factors are found in the individual's external environment, in their culture and in the physical resources available to them (Caniels & Kirschner, 2012). Bronfenbrenner's (1994), theory is useful in understanding the intrinsic and extrinsic factors that are affecting a child with ASD will enable an understanding of what is preventing access to education for them and subsequently their admission into an educational program that will cater for their specific needs.

**Special Schools**

Learners with ASD that are not admitted into special schools still need other support systems and if the admission criteria for special schools and the level of care that they are able to provide is established, the criteria can be modified for both full-service schools and

mainstream schools so that they can provide education to learners with ASD that display less severity in their symptoms.

**Level of support provided by special schools in South Africa.**

According to WP 6, all schools should have support systems in place (Department of Education, 2010a). The level of support needs is the scope and intensity of support which is required by a school, educator, learner or system (Department of Education, 2010a). In order to address the barriers to learning and challenges experienced by a learner, support packages are determined. These support packages vary in intensity and variety and contain numerous resources such as human, physical or material resources or a combination of these three resources (Department of Education, 2010a). Level of support is divided into levels 1 to 5 with 1 requiring the least amount of support and 5 requiring the most amount of support (Department of Education, 2005c). These levels also determine the range of support programmes which must be available for each level of support (Department of Education, 2005c). Low levels of support (Levels 1 and 2) should be available in ordinary and full-service schools. Moderate levels of support (level 3) should be available in ordinary and full-service schools and high intensive and very high intensive levels of support (level 4 and 5) should be available in full-service and special schools (Department of Education, 2010a).

Certain factors need to be taken into account when determining what level of support a learner needs. Firstly, the type of disability does not determine the level and type of support required. Special schools are required to admit learners requiring a high level of support and not according to their disability (Department of Education, 2001). Secondly, extrinsic and intrinsic barriers to learning must be considered in relation to their effect on the disability. Full-service schools should be able to accommodate all levels of support and should determine their ability to accommodate learners with ASD before referring them for placement in a special school / resource centre.

***Low levels of support.***

Ordinary and full-service schools are required to have systems in place for individuals requiring low levels of support (Support levels 1 and 2). It is a short term support around individual cases and the capacity of educators to meet the needs of these individuals needs to be developed (Department of Education, 2010a). A public school (ordinary school) may be either a public school for learners with special education needs or an ordinary public school (Department of Education, 2005d). Ordinary schools or mainstream schools are support level 1 schools. Their role in the inclusion policy is to shift towards an inclusion model and focus on early identification of learners experiencing barriers to learning as well as addressing the wide range of learning needs and intervention required in the Foundation Phase (Department of Education, 2001).

***Moderate levels of support.***

Individuals requiring moderate support (Level 3) can be placed in ordinary and full-service schools. The level of support is more specific and is short to medium term support (Department of Education, 2010a). Full-service schools are mainstream educational systems that play an important role in catering for learners that require moderate levels of support. They are designed to provide flexibility in teaching and learning and provide support to learners and educators (Department of Education, 2005b). Full-service schools should have the capacity to provide education to the needs of each learner regardless of their disability, learning style or social difference. The essence of a full-service school is the promotion of diversity, support and flexibility while striving to ensure that access, equity, quality of education and social justice within the educational system are achieved (Department of Education, 2005b).

### *High levels of support.*

Full-service and special schools are expected to be able to provide high intensive and very high intensive levels of support (Level 4 and 5). This support is intensive and frequent and specific to the individual (Department of Education, 2010a). Special schools are schools that are equipped to educate learners requiring high levels of intensive support (Department of Education, 2005d). As part of the inclusive policy of WP6, special schools are in the process of being converted into resource centres and will form part of DBST and provide professional support to schools in the neighbourhood (Department of Education, 2001). Special schools are in the process of being decategorized. Instead of being categorized according to disability, they will provide education for learners with disabilities based on whether they require high levels of support. It is also essential for this level of support to be flexible so that a learner is able to move into a full-service or ordinary school when they no longer require intensive support (Department of Education, 2005c). Special schools should also be following a revised process of identifying, enrolling and assessing learners and this process should include and acknowledge information obtained from key role players such as educators, lecturers and parents (Department of Education, 2001).

DBST's are a team of professional services that are available at a district level. These support teams include special/resource schools and experts from local educational institutions as well as community resources that are available. Together, they provide assistance to early childhood development centres (ECD), schools, colleges and adult learning centres. Their key role is to assist in the identification of barriers to learning and to address these barriers for the purpose of promoting effective teaching and learning (Department of Education, 2005a).

### **Admission of learners into special schools.**

There are a limited number of special schools with limited spaces and admission into a special school is therefore only considered if support in a local school is not appropriate.

Special schools should not admit learners requiring levels of support that are lower than what the special school is capable of providing. If a learner wants to be considered for a place in a special school, they need to have undergone the SIAS process. The DBST then has to endorse the decision of the assessment results. Learners may not be refused admission based on the severity of their needs if they require high levels of support and they should be given priority (Department of Education, 2007).

The SIAS process is a core function of the DBST and includes numerous stages that form part of the decision making process for placing a learner into a special school. The first stage involves developing a learner profile through obtaining any background information of the learner. The second stage involves identifying barriers to learning and development and the third stage is for determining the level and nature of support that is required. This is done in consultation with the DBST, the institutional level support team (ILST), the teachers and the parents. The fourth stage involves planning a course of action and making provisions for the learner as well as monitoring any additional support that is required (Department of Education, 2008).

With the restructuring of special schools away from categories according to disability, special schools are organized around the support programmes that they are able to provide. This depends on staffing, curriculum, physical infrastructure, technology and the training and qualifications of staff members. Special schools need to specialize in the kinds of support that they can offer so that they can become centers of excellence (Department of Education, 2007). They are able to specialize in a combination of areas but they must be equipped in all respects in order to offer support in numerous areas and the curriculum of the school should be able to be differentiated to meet the needs of learners with ASD (Department of Education, 2007).

Support programmes are expected to address the following barriers to learning: severe learning difficulties, hearing difficulties, visual impairment, the mobility of the learner, the language and social communication ability of the learner, behavioural and psychosocial factors impacting the learner's ability to function, as well as social and economic neglect; which plays a role in the level of care that learners receive. Many learners also have complex, multiple and pervasive disabilities which need to be addressed (Department of Education, 2007).

**Training programmes for ASD.**

For inclusion to work effectively, educators will need new skills in numerous areas. Educators need skills in differentiating between different curriculums and assessments and adapting the curriculums for learners with ASD. If the assessment of learners is undertaken effectively, the teaching of learners with ASD will be more effective.

Teaching techniques in Inclusive Education need to foster diversity (Duncan Sinclair Academy, 2012). It is important for learners with ASD to be around learners without ASD so that they learn to mimic and copy people and through this, learn about socially appropriate behaviour. Teaching techniques will also vary according to the level of severity of ASD (Duncan Sinclair Academy, 2012). Teaching techniques that are commonly used are the verbal behaviour classification system of language instruction, the picture exchange method, the teaching of social skills and play and applied behavioural analysis (Duncan Sinclair Academy, 2012).

In South Africa, the Children's Disability Centre has implemented the "Fish Bowl Course" which is an intensive five day training course on ASD. This course incorporates elements of Makaton and AAC (PECS). It is a "hands on" training course for teachers, therapists, parents and carers (Children's Disability Centre, 2013). The Ernie Els Centre for

Autism in Johannesburg offers training for parents and caregivers in Applied Behavioural Analysis (ABA) for learners who are unable to attend an Early Childhood Development (ECD) centre or school. Autism South Africa (ASA) together with the South African Association for Child and Adolescent Psychiatry and Allied Professionals (SAACAPAP) also facilitated the training of professionals in ADOS (Autism Diagnostic and Observation Schedule) which is a diagnostic tool for ASD (Autism South Africa, 2012a). Other training programmes include Makaton, Vera and PECS and TEACCH. Other short courses are available from various organisations.

Mubaiwa (2008) points out that the main mode of therapy that is used in educating learners with ASD is ABA and TEACCH (Treatment and Education of Autistic and Related Communication Handicapped Children). The difficulty with these intervention methods is that they require specialist manpower and infrastructure and the special schools are already overstretched with regard to how much they can provide (Mubaiwa, 2008). ABA is an evidence-based intervention for ASD which is often used by speech and language pathologists and behaviour analysts in their intervention with learners with ASD (Donaldson, Stahmer, Nippold & Camarata, 2014). ABA is based on the principles of operant conditioning in order to provide skill development in learners with ASD (Smith, 2008). TEACCH is also an evidence-based intervention for ASD (UNC School of Medicine, 2014). TEACCH was developed in 1966 by the School of Medicine at the University of North Carolina in the USA (UNC School of Medicine, 2014). The primary aim of TEACCH is to prepare individuals with ASD to live and work effectively in the home, school and work environment through a wide range of services (The National Autistic Society, 2014).

**Theoretical Formulation**

Bronfenbrenner's ecological systems theory takes into account the interaction between the developing person and the environment (Bronfenbrenner, 1979). The ecological environment of a learner with ASD would include the biological factors and predispositions towards ASD as well as the impact of the environment, the family and other psychosocial factors. Bronfenbrenner's theory is useful in understanding the impact that ASD has on the learner, the family and the environment surrounding the learner. The learner is entrenched in multiple systems that interact with and influence each other (Morgen, 1988). According to Bronfenbrenner (1994), in order to understand human development, the entire ecological system encompassing the development of the learner should be integrated. In order to understand the development of ASD, the various levels of Bronfenbrenner's theory should be investigated when making a diagnosis so that the learner can be placed into an appropriate environment where all the factors influencing the learner will be taken into consideration.

The microsystem involves the learner and activities, social roles and interpersonal relations that they experience in a one-on-one setting and includes the learner's immediate environment (Bronfenbrenner, 1994). This would include interactions with peers and family members within the microsystem. The mesosystem is comprised of processes taking place between two or more settings and which contain the learner e.g. the learner in relation to both the home and the school. The exosystem links two or more settings outside the setting of the learner e.g. the relation between the school and the peer group or the school and the parents. The macrosystem involves the overall micro-, meso-, and exosystems of a particular culture or subculture. At this level, the social and psychophysiological features that impact the disorder are looked at and interpreted all the way back to the level of the microsystem (Bronfenbrenner, 1994). An example of the relationship between the various systems is presented on the following page:

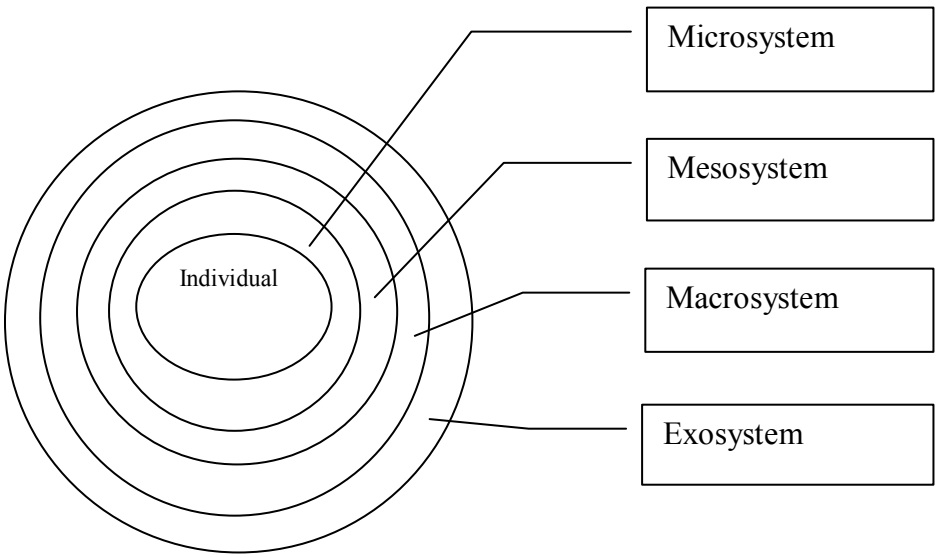


*Figure 1.* Visual Representation of Bronfenbrenner's (1979) Ecological Systems Model

WP6 requires that the barriers to learning are investigated (Department of Education, 2001). Barriers can be both intrinsic and extrinsic. Bronfenbrenner's ecological model is a framework which can be used to develop a comprehensive understanding of all the information that needs to be considered regarding a learner (Mc Guckin & Minton, 2014).

Bronfenbrenner's ecological model provides a broad framework from which to view the various systems at play with the admission and access of learners with ASD into special schools in the province of KwaZulu-Natal. It is predominantly a framework and does not describe individual problems and difficulties that e.g. a learner is experiencing in detail. However, the framework that it identifies gives an indication of where the problem areas could occur and of the different systems that need to be identified and considered when looking at admission and access to education.

**Conclusion**

In an attempt to understand ASD, the literature regarding the current situation of ASD in South Africa was investigated. The symptomology and diagnosis of ASD were evaluated and the origin of ASD and theories on ASD were explored. The literature review also

indicated that ASD impacts the family in various ways. Special schools were investigated and it was shown that they are required to provide support and intervention for learners requiring a high level of support. Bronfenbrenner's (1979; 1994) ecological system theory was found suitable for exploring ASD and formed the theoretical formulation of the study.

# Chapter 3: Methodology

## Introduction

In this chapter, the research design and methodology for the current study is presented and discussed. The research paradigm is introduced and the participants of the study are discussed. The procedure for collecting data is then discussed as well as the ethical considerations and reliability and validity of the study. The study follows an interpretive paradigm with a qualitative research design. Biographical data was sought with the questionnaires and this was followed by in-depth semi-structured group interviews.

## Research Design

The study comprised of a qualitative research design. The research design used triangulation as a method of data collection. Triangulation is a qualitative technique that collects data from various sources using different means (Berkwits & Inui, 1998). Methodological triangulation was used so that multiple methods could be used to study the problem such as with the use of questionnaires and semi-structured group interviews. This ensured that the data obtained from the one source could be validated against the data obtained from the second source (Kelly, 2006a). The questionnaires were analysed from a qualitative design perspective where the results obtained were used to supplement the information obtained from the semi-structured group interviews. The semi-structured group interviews were interpreted using a qualitative design that followed an interpretive paradigm (Durrheim, 2006). An interpretive paradigm was used so that the data obtained could be understood within the context of special schools. The information gained from the combination of the questionnaires and the semi-structured group interviews gave a more thorough understanding of the admission process for learners with ASD. Using a semi-structured group interview reflected a greater cross section of interests and allowed for a

degree of discussion to take place that diverted from the questions asked, giving rise to more areas for discussion or of interest (Kelly, 2006b). This process of methodological triangulation where a single problem is looked at using more than one method was found to be an effective technique for gathering data for the purpose of assessing the overall admission process (Kelly, 2006a).

Each special school was sent one questionnaire to complete and one semi-structured group interview was held in each special school. The purpose of the questionnaire was to determine demographic information about the learners with ASD in the special schools, the admission criteria that the special schools use to admit learners with ASD and the admission processes that are followed.

A qualitative interpretive design was used for the semi-structured group interviews. Semi-structured group interviews were used to determine what level of support the special school was able to provide learners with ASD and what kind of support was needed to meet the needs of learners with ASD. Semi-structured group interviews were used because they are effective in determining a range of opinions that are likely to be encountered in the population (Kelly, 2006b). Differences in the admission processes and criteria were sought as well as commonalities between the participants.

Thematic analysis was used to analyse the data obtained from the questionnaires and the semi-structured group interviews. Thematic analysis is a qualitative method that is used to identify, analyse and report on patterns (themes) found in the data (Braun & Clarke, 2006).

**Sampling**

According to the Department of Education (2010b), there are 71 special schools in the province of KwaZulu-Natal catering for learners with severe barriers to learning. Six special schools cater for learners where the primary disability is a moderate intellectual disability.

There are 31 special schools for learners with a primary disability of a severe intellectual disability, 3 are child and youth care centres, 11 are for a primary disability of a hearing impairment, 2 are for a primary disability of a visual impairment, 11 are for learners with a primary physical disability, 1 is for cerebral palsy learners, 1 is for communication disorders and 5 are for specific learning difficulties (Department of Education, 2010b).

The population of the study consisted of the 71 special schools in the province of KwaZulu-Natal. Special schools were selected using purposive sampling as they have a greater probability of having learners with ASD and were therefore more likely to be typical of the population group required. Purposive sampling bases the selection of participants on their accessibility and availability to participate in the study (Durrheim & Painter, 2006). Purposive sampling is a type of non-probability sampling and can therefore not be used to make generalisations (Laerd, n.d.). A limitation of purposive sampling is that it is prone to researcher bias. Thus, in the current study, the sample was selected according to very specific criteria in order to minimise the impact of researcher bias (Laerd, n.d.).

The sampling was carried out in two stages. The first stage involved identifying suitable population samples to complete the survey questionnaires and the second stage involved selecting a suitable sample to participate in the semi-structured group interviews. The principals of the nine special schools completed the questionnaires and a total number of 47 people from the special schools were interviewed across the nine special schools in semi-structured group interviews. These individuals varied from school to school and anyone involved in the admission or education of learners with ASD took park in the semi-structured group interviews. Purposive sampling was used to ensure that only individuals involved with the admission or education of learners with ASD took part in the semi-structured group interviews. This was achieved by asking the principals of the special schools selected to identify members of their staff involved in the education of learners with ASD and invite

them to participate in the semi-structured group interviews. As such, the focus groups all had different numbers participating. The same special schools were used for the interviews and the questionnaires. The individuals participating in the semi-structured group interviews did not complete the questionnaire as the questionnaire had been sent to the principal to complete.

Out of the 71 special schools in the DoE of the province of KwaZulu-Natal, nine special schools which are located in four different districts were chosen for the current study. Based on the geographical structural demarcation of the province, there are 12 districts which fall under the DoE KwaZulu-Natal. The participating districts were the four closest districts in terms of proximity to the researcher of the current study. These districts were Umgungundlovu, Umlazi, Pinetown and Ugu.

The following categories were represented by one special school each: physical disability, hearing impairment, visual impairment, communication disorders (remedial school), severely mentally handicapped, learning difficulties, moderate intellectual impairment, cerebral palsy and severe intellectual disabilities. A second school in the category of severe intellectual disabilities was added to the study as a follow up to questions obtained in the course of other interviews.

To further explain the context in which the study occurs, the following table gives more details on the special schools involved.

Table 1

*Contextual Information on the Special Schools in the Study*

| **Special School** | **Number of participants in semi-structured group interviews** | **District** | **Urban/Rural** | **Ex Model C** |
|---|---|---|---|---|
| School A | 3 | Umgungundlovu | Urban | Yes |
| School B | 2 | Umgungundlovu | Urban | Yes |
| School C | 1 | Umlazi | Urban | Yes |
| School D | 8 | Pinetown | Urban | Yes |
| School E | 1 | Umlazi | Urban | Yes |
| School F | 3 | Ugu | Urban | Yes |
| School G | 8 | Umgungundlovu | Urban | Yes |
| School H | 16 | Ugu | Rural | No |
| School I | 5 | Pinetown | Urban | Yes |

Kelly (2006b) states that research has shown that six to eight data sources are sufficient for analysing a fairly homogenous sample. In the current study, a data source refers the special schools in the study. Interviews were conducted in nine special schools in the province of KwaZulu-Natal which is in agreement with the amount suggested by Kelly above.

**Procedure for Data Collection**

Data collection was carried out in two stages. The first stage involved sending out questionnaires and the second stage involved conducting semi-structured group interviews.

In the first stage, a letter to the principals of the special schools and a questionnaire was emailed to the selected special schools (see Appendix 1) together with the letter of consent from the KwaZulu-Natal Department of Education (see Appendix 2). The principal

or a member of the admissions team completed a questionnaire and it was either emailed back or collected when the interview took place. All nine schools returned the questionnaires.

The confidentiality of the questionnaires was assured as well as the participation of the special school in the study. This was followed by a telephonic phone call to confirm participation and a suitable time to conduct the group interviews. The special schools were selected using purposive sampling. One special school from each special school category was selected for the purpose of the study. They were chosen from various districts in the province of KwaZulu-Natal.

The second part of the data collection process involved the semi-structured group interviews (see Appendix 4). The semi-structured group interviews took place at the special schools at a time that was suitable for them. Each semi-structured group interview took approximately 30 to 40 minutes to complete. For the semi-structured group interviews, professionals and non-professional individuals within the special school who work with learners with ASD were selected using purposive sampling to take part in the semi-structured group interviews. The principal was asked to select the members of staff involved with learners with ASD such as occupational therapists, speech and language therapists, physiotherapists, teachers, nursing staff, social workers, child and youth care workers, psychologists, guidance and counselling specialists, sign language interpreters and any other individuals involved with the admission process for learners with ASD in line with the policy framework (Department of Education, 2008). A professional admission team which was composed of educators, therapists (speech and language therapist, occupational therapists, physiotherapists) psychologists and school management were therefore combined for the semi-structured group interviews. This multidisciplinary group was homogenous in that it was composed of professionals within the special school. This ensured that a wide range of

opinions were possible during the semi-structured group interviews so that viewpoints from different members of staff could be obtained for the variety of questions asked.

These individuals participated on a voluntary basis and were informed that they were allowed to choose to participate in the study. They were then required to sign a consent form stating that they agree to participate in the study (see Appendix 3).

Before the semi-structured group interviews were conducted, the voluntary nature of the interview was discussed as well as individual confidentiality. All the necessary information regarding the process was provided on a separate sheet of paper for them to keep and the signed consent forms were kept by the researcher. Group interviews were audio recorded and transcribed for data analysis. Transcriptions were not out-sourced so confidentiality was maintained with the transcriptions. Each special school was coded as a letter of the alphabet and referred to as such in the research.

Semi-structured group interviews were chosen as a method for data collection as they provide an opportunity to explore the viewpoints, beliefs, experiences, motivations and ideas of the participants of the group (Gill, Stewart, Treasure & Chadwick, 2008). By following a semi-structured approach, certain key questions were used to guide the discussion and so that certain areas would be questioned to illicit information. It is also flexible in that it allows participants to elaborate and to also venture into topics or areas that were possibly important to discuss but that had not been previously considered (Gill, Stewart, Treasure & Chadwick, 2008). A study on "The challenges experienced by educators in implementing inclusive education in primary school in South Africa" by Ladbrook (2009) also used group interviews to determine the opinions of the sample population and found this method effective for eliciting information about the construct.

**Analysis of Data**

The study is an investigation into the admission criteria and access to education for learners with ASD. It made use of methodological triangulation in an interpretive paradigm using qualitative data. The data was analysed in a step-by-step process. Firstly, the questionnaires were sent to the special schools to be completed. Once they had all been returned, the questionnaires were coded for use. Qualitative data was obtained from the questionnaires in the form of themes and patterns observed across the various special schools. Descriptive statistics were used to describe some of the data in the questionnaires in order to substantiate information obtained from the semi-structured group interviews. Further qualitative data was then obtained by conducting semi-structured group interviews in the nine special schools. These semi-structured group interviews were recorded and then later transcribed. These transcriptions were coded and investigated using thematic analysis. This ensured that a comprehensive account of the admission processes and criteria was obtained. The transcripts were derived from the nine special schools interviewed using semi-structured group interviews. All interviews took place at the special schools. The process that was followed for the qualitative data analysis is indicated below:

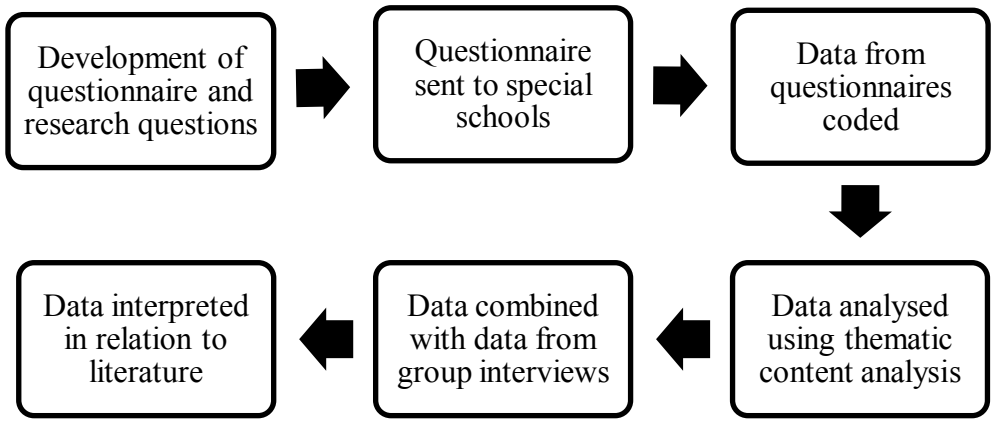


*Figure 2*. Procedure for Questionnaires

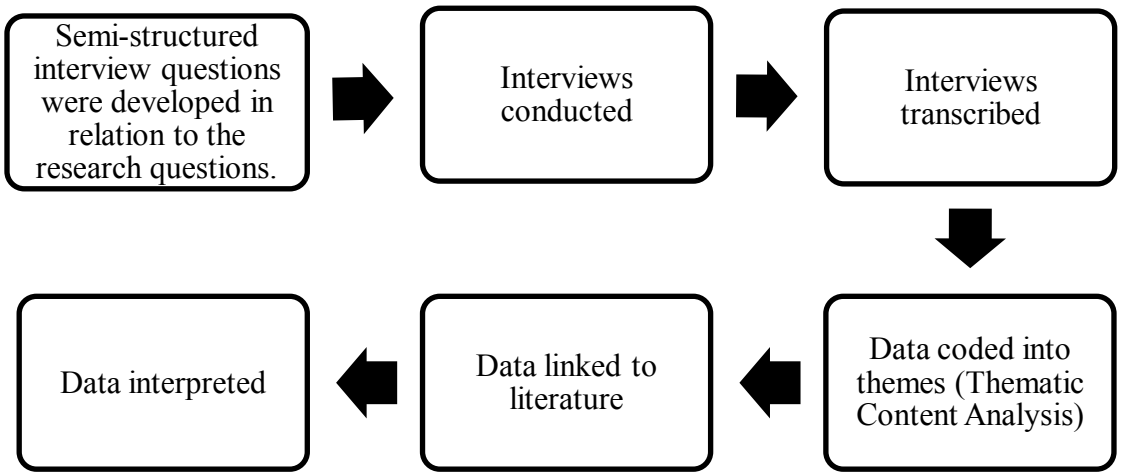


*Figure 3*. Procedure for Semi-structured Group Interviews

Questionnaires and semi-structured group interviews were analysed using thematic analysis. Thematic analysis is concerned with the qualitative aspects of the material. It combines an analysis of the frequencies with which themes occur as well as what they mean in the context of the research (Joffe & Yardley, 2004). The information obtained was coded and categorised to identify themes and patterns and to develop categories (Taylor-Powell & Renner, 2003). This was undertaken in order to determine which themes occurred across the various special schools. By identifying these themes, it was possible to investigate the admission criteria and processes utilized by the various special schools utilized.

The following process was followed for thematic analysis. The first phase in thematic analysis involved becoming familiarised with the data. This included becoming immersed in the data obtained through a thorough literature review on the topic. Through repeated reading of the data, a deeper understanding of the data was developed. In this phase, coding started to be developed and defined (Braun & Clarke, 2006). Once this had been done the data was transcribed into a written form. Further familiarisation with the data was achieved through the process of transcribing. The second phase involved generating initial codes. In this process, data was organised into meaningful groups (Braun & Clarke, 2006). This process was also

guided by the research questions which aided in determining groups. Coding was done manually in a spreadsheet and not with a software programme. Phase 3 entailed searching for themes and starts once all the data has been collected and coded for use. This phase looked for the broader themes in the coded data as well as sub-themes (Braun & Clarke, 2006). In phase 4, the themes were reviewed and refined. During this process, themes were combined, reworked, removed and new ones created. Re-coding occurred to incorporate data missed in previous coding exercises. Data was re-coded, refined and reviewed until a thematic map was developed. In phase 5, themes were named and defined. In this phase, the essence of each theme was determined. The relationship of each theme with the research questions was considered. Sub-themes developed gave structure to the larger themes. The final themes obtained came from the refinement of the themes through the phases. The final phase involved the write up of the fully developed themes with an interpretive analysis (Braun & Clarke, 2006). The final thematic map is illustrated in Figure 7.

## Methodological Considerations

### Validity.

Validity is a key aspect of research and looks at whether the research is accurate and truthful. In qualitative research, methods used do not lead to typical calculations of validity. As such, terms such as credibility, trustworthiness and consistency are more sought after when evaluating the merit of the research (Brink, 1993). The current study produced an evaluation of the current situation in special schools. To increase validity, typical sources of error were monitored to ensure accuracy and truthfulness in the results. These sources of error are typically the researcher, the participants, the context, the methods of data collection and analysis. Triangulation was also used to increase validity as it uses more than one method to obtain data helping reduce bias (Brink, 1993).

**Reliability.**

Reliability refers to the degree to which results can be repeated. This study measured a current situation that will change over time and results are expected to differ from situation to situation. Therefore, the study aimed to achieve dependability instead of reliability. Dependability refers to the degree to which the reader is convinced that things did occur as the research says it did (Van der Riet & Durrheim, 2006).

**Generalisability.**

According to Kelly (2006a), a study's generalisability relates to how well a study is able to be applied to other contexts. As the study used purposive sampling, which is an example of a nonprobability sample, it is limited with regard to its generalisability (Laerd, n.d.).

**Transferability.**

Transferential validity is the extent to which a study is able to draw conclusions from a few subjects and then to still take that information and the findings and transfer them to other similar contexts (Kelly, 2006a). By selecting groups of individuals from different areas of specialities (psychologists, speech and language therapists, occupational therapists, teachers etc.), a wide range of opinions on the phenomenon was received from a diverse group of people that were involved in similar situations in a different manner. The same procedure was followed for each group interview which enabled the various opinions to be categorised and analysed from a variety of perspectives. This also ensures that a representative sample is obtained, firstly from the different categories of special schools and then also from the different types of specialists within each special school. The study therefore has transferential validity in that the findings can be transferred to other settings and be adapted for use in other special school environments.

## Ethical Considerations

Numerous ethical considerations were taken into account in the current study.

### Independent and competent ethical review.

Prior to the onset of the research, the research was subjected to an independent ethical review by the ethical committee of the University of KwaZulu-Natal and it was approved for research.

### Informed consent.

Informed consent for the research was obtained from the KZN Department of Education. All participants in the study were also required to sign a consent form and acknowledge that they understood the terms of their participation. Participants in the study were provided with any knowledge of the study that they required as well as the voluntary nature of their participation. They were also informed that they could leave the study at any time. This study made every attempt to ensure that both autonomy and nonmaleficence were followed so that no participant was harmed directly or indirectly by the study (Wassenaar, 2006).

### Ongoing respect for participants and the study community.

Ongoing respect for special schools and the study community is another ethical consideration that was accounted for by ensuring that every special school and group interview participant in the study remained anonymous. Even though the special schools were selected from different categories, the data was analysed as a collective and information was therefore not able to be identified as coming from a particular special school. Each participant and their opinions were treated respectfully and findings will be made available to all special schools involved as well as to any other interested parties upon completion of the study. The benefits of the study are the possible improvement of access to special schools for learners

with ASD and an improved system of admission for use by members of the special school team involved with learners with ASD. Improvements in the resources provided to special schools and by special schools could also be achieved.

**Social value.**

The study demonstrated social value as the beneficiaries of this research are the learners with ASD. Information gained on admission practices will benefit them directly. The data collected has the potential to improve the access to education for learners with ASD. Special schools also directly benefit from this study as it could play a vital role in the ongoing need for funding, training initiatives and access to provisions required for the education of learners with ASD. It also provides a framework for special schools to follow on what criteria to use for admitting learners with ASD into the special school in accordance with the level of severity they can accommodate and what provisions they are able to provide.

**Fair selection of participants.**

The ethical principle of "fair selection of participants" was achieved through selecting participants from the list of special schools in KwaZulu-Natal. One special school from each special school category was selected to ensure that each category is represented in the sample. Fair selection is important to ensure that justice is maintained (Wassenaar, 2006). Each special school and individual participant was treated with fairness and dignity. Any participants that felt that they had been harmed through participating in the study had the option of being referred for counselling to an appropriate counsellor in the area or report any transgressions to the UKZN ethics committee..

**Favourable risk/benefit ratio.**

In order to ensure that a favourable risk/benefit ration was achieved, it was taken into consideration that some participants in the study could have become distressed if they had

e.g. children with ASD or knew of other individuals with children with ASD and these children had not been able to receive adequate care. As the research is not being directly performed on learners with ASD but on the special schools in which they go to, these learners will largely benefit from the research if the admission procedures are improved.

**Collaborative partnership.**

Another ethical consideration was taken into account by establishing a collaborative partnership with those involved (Wassenaar, 2006). Individuals and organisations with knowledge regarding ASD were questioned to get their thoughts and perceptions. This information was used to assist in the development of the questionnaire and the questions for the semi-structured interviews. This made the research participants partners in the research process so that the planning of the project included their expressed needs and thoughts on the subject matter. Ultimately, the benefits of the research will directly benefit the special schools involved and other special schools in similar situations. Individuals questioned included various staff members involved in ASD research, special school principals, therapists from a variety of disciplines and literature based on admission policies.

## Conclusion

The study followed a qualitative research design that used triangulation to collect data. Survey questionnaires and interviews used thematic analysis to elicit information. The procedure followed in the implementation of the current study was discussed. Methodological and ethical considerations were evaluated throughout the current study.

# Chapter 4: Results

## Introduction

The results chapter provides data obtained from the questionnaires and the semi-structured group interviews. The admission policies that were observed are explained as well as the themes and the sub-themes that were identified in the data collection process.

## Context

In the nine special schools surveyed, there were a total of 2151 enrolled learners. This ranged from 127 to 620 learners in each special school. Of these learners, 121 learners (5.62%) had ASD. There seem to be more male than female learners diagnosed with ASD with fourteen female learners with ASD (11.57%) and 107 male learners with ASD (88.43%) making up the 121 learners with ASD in the sample. This is indicated in the figure below:

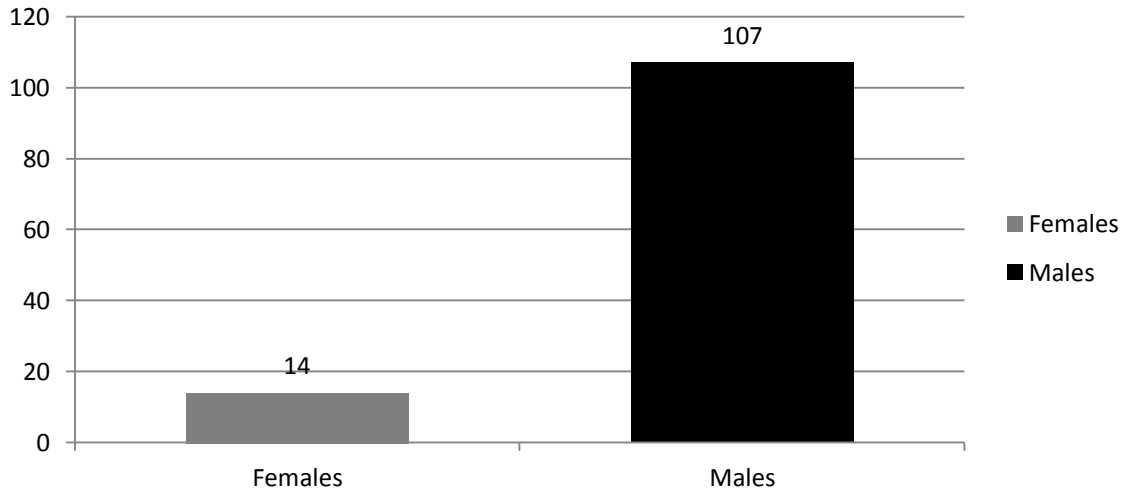


*Figure 4*. Male and Female Learners with ASD

The composition of the members of staff in the special schools is indicated in the following figure. Psychologists and counsellors made up the lowest proportion of staff

members while teachers and remedial teachers made up the highest proportion.

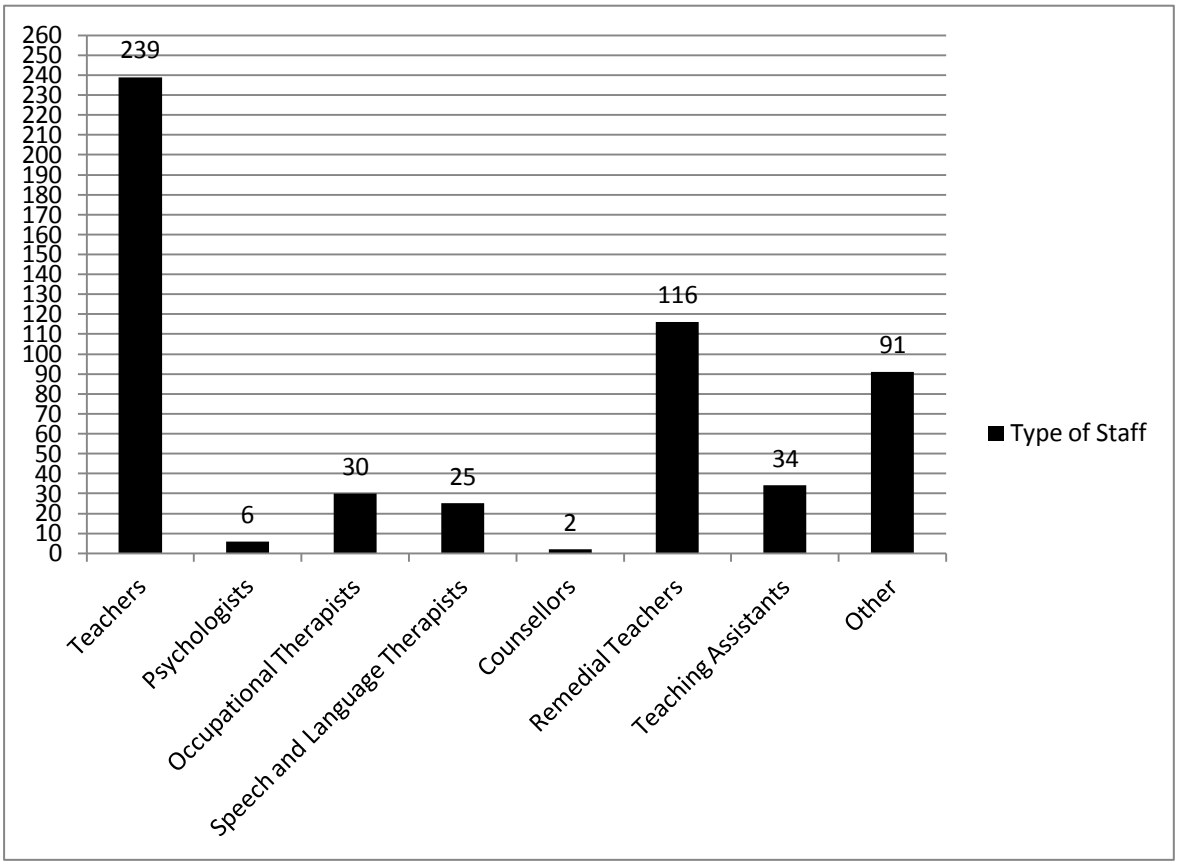


*Figure 5*. Types of Staff Members

The remedial teachers were also classified as teachers so they are essentially part of the teacher group but have been separated due to their speciality. Although there are six psychologists, two special schools had two psychologists each so only four of the nine special schools had psychologists (44.44%). "Other" ended up being a large group as it incorporated the following staff members: nurses, house parents, general assistants, maintenance staff, administrative staff, head's of department, principals and physiotherapists. Not all staff members were directly involved in the education of learners with ASD. However, it is important for all staff members to have an awareness of ASD if they are involved with learners with ASD in any way.

The multidisciplinary teams vary in their composition. They include both professional and non-professional staff. The principal forms part of the team in six of the nine special schools with four of these special schools also having the deputy principal present. Therapists (occupational therapists, speech and language therapists, audiologists and psychologists) form part of the admission team in seven of the nine special schools. Three of the special schools have a member of the medical team present. In the current study, a medical team member referred to a professional nurse on staff at the special school. Four special schools have heads of department as part of the team and two special schools have educators on the admission team. Most teams meet weekly or bimonthly with one team meeting daily. The following figure is an indication of who the multidisciplinary teams are comprised of:

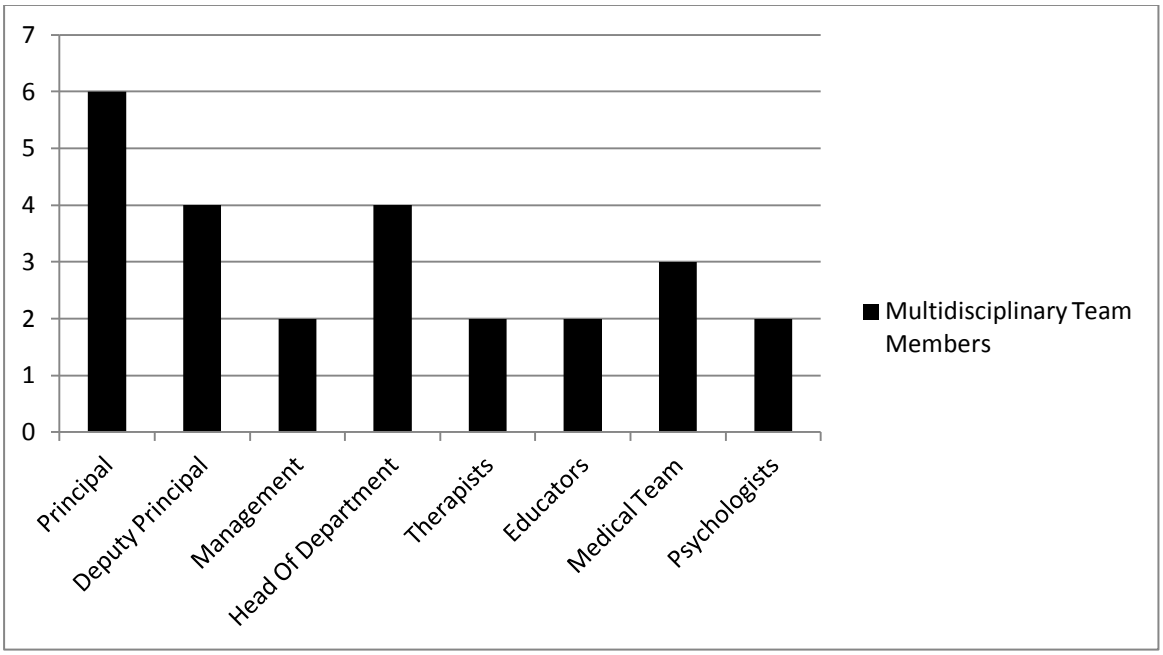


*Figure 6.* Multidisciplinary Teams' Composition

The members of these multi-disciplinary teams are therefore directly involved with the admission of learners with ASD into the special school and are responsible for deciding whether a learner will be granted admission or not.

**The Admission Policies**

The multidisciplinary teams follow the admission policies of the special schools. The admission policies that these multidisciplinary teams use are based on various aspects. These include level of support required, CAPS (Curriculum Assessment Policy Statements), learning potential and deficits, the KZN Educational Policy, the primary disability, resources, staffing, facilities, WP6 and the South African School Act. The purpose of policy documents is to provide a framework for the development of admission policies for special schools. Special school admission policies must be consistent with the Constitution of the Republic of South Africa, 1996 (No.108 of 1996), the South African Schools Act, 1996 and any applicable provincial law (Department of Education, 2008).

**Findings from Data Collected**

The group interviews conducted resulted in various themes emerging from the data obtained during the interviews. These findings consisted of two primary themes and various sub-themes determined across the nine transcripts. The two primary themes elicited from the data were *access to education* and the *admission process*. These primary themes form the basis of the research investigation. The theme *access to education* investigated the support that is available and is still required by the special school. This theme identified various factors that were involved in investigating the kind of support that special schools need in order for them to meet the needs of learners with ASD. The second primary theme, *admission process,* investigated the admission processes that special schools use to admit learners, what admission criteria they use and what intervention strategies they are able to offer to learners presenting with ASD.

While analysing the data, the various subthemes became evident and gave insight into the two primary themes. The subthemes enabled links to be drawn between access to

education and the admission process. Thematic analysis was used to determine the themes. An analysis of the findings obtained from the interviews follows. Special schools are referred to as School A, School B, School C etc. The questions were obtained from the semi-structured interview which is attached in the appendix (see Appendix 4). The themes and subthemes identified are indicated below:

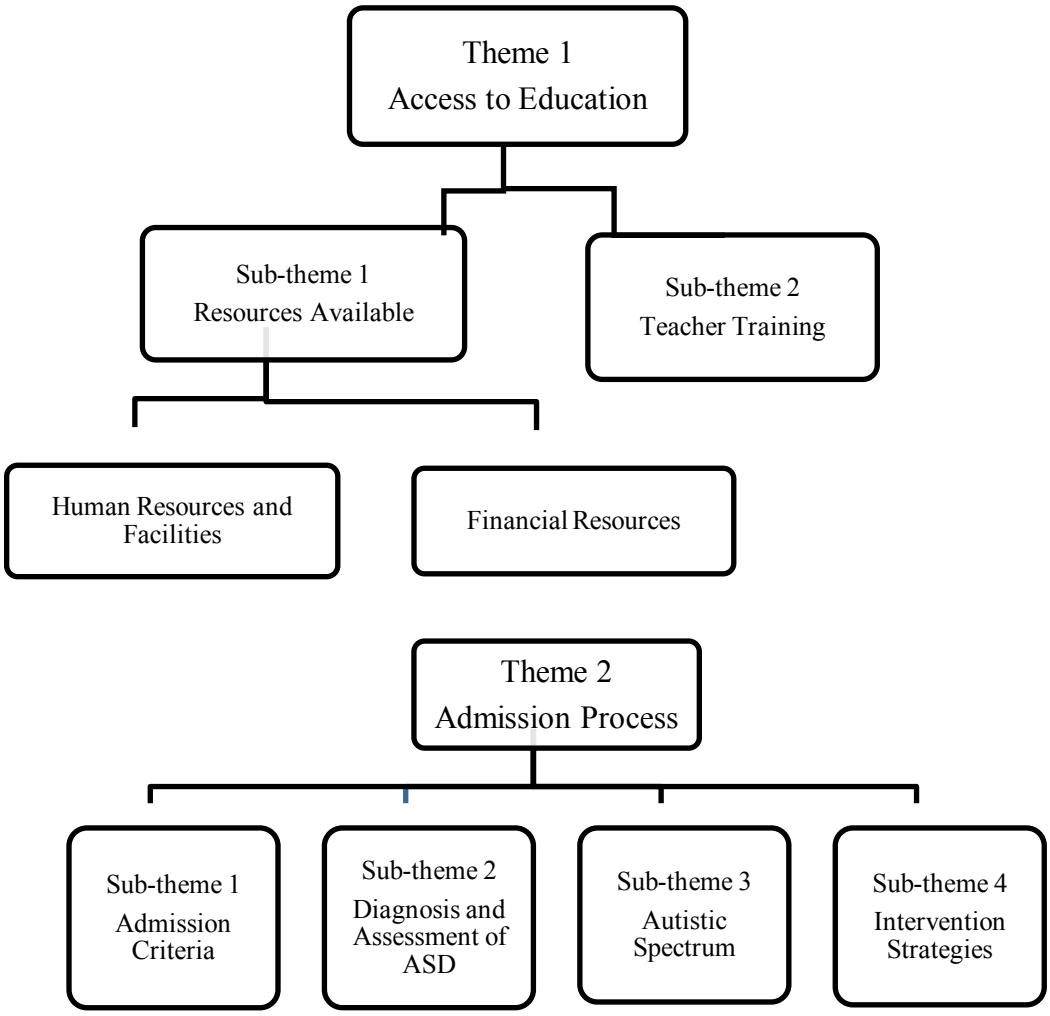


*Figure 7.* Themes and Sub-themes Identified in the Semi-structured Group Interviews

**Access to education.**

*Access to education* was identified as one of the major themes and incorporates the sub-themes *resources available* and *teacher training*. The sub-theme *resources available* was

identified as a sub-theme in that the data elicited the idea that access to education was dependent on the resources that each special school is able to provide. The resources that were prominent in the data were human resources and facilities and financial resources. The second sub-theme that fell under access to education was *teacher training*.

***Resources available.***

*Human resources and facilities* was a concern that varied according to each special school. Special schools that did not have enough human resources were not able to accommodate as many learners with ASD. Where facilities were lacking, special schools either made do with what they had, made their own resources or used the funding to buy additional resources. Some special schools did not have the human resources or the facilities available to provide access to education for learners with ASD. The nature of the resources that were lacking in the special schools included but was not limited to human resources and teaching and learning material such as books. The participants also expressed dissatisfaction with the quality of training that teachers receive in dealing with learners who present with special needs. Equipment seems to be a challenge as some special schools need to adapt equipment to cater for learners with special needs. The following quotes illustrate this:

> *"We do not have any physical resources or human resources. We do not have enough therapists. So we basically make do with what we have" (School A).*

> *"No. We need more basic teaching resources such as books. We need lots more. Also e.g. the training in South Africa is not enough" (School D).*

> *"We do not have the facilities for a separate autistic class. We have a few teaching assistants, four paid for by the department and two paid for by the school governing body. We adapt our equipment to cater for the needs of autistic learners and other learners with special needs" (School H).*

Resources discussed that were needed in order for special schools to feel equipped to cater for the needs of learners with ASD included more physical space, ipads, colour printers, ASD specific teacher aids, sensory rooms, modified playground equipment and teaching assistants. One of the schools made the following statement:

> *"We have got the facilities; we just don't have the staffing" (School I).*

This is of concern as even if the resources are available, they are ineffective without adequate staffing. School G also stated that they required more teaching assistants and equipment. Other special schools had resources available to them but a limited number of special schools had a relaxation room or a sensory integration room that could be used with the learners with ASD.

> *"We have the hammocks, the heavy vests, we have a sensory integration room and a gross motor play therapy room and they have all the things in there so if a child gets out of hand, one of the sensory integration therapists will take them there" (School E).*

Resources are still inadequate in most of the special schools questioned. Data obtained from the questionnaires indicated that of the nine special schools, only two had specialised autistic units. According to School A, there has been more support in the last two years from the department. However, with the lack of resources and staffing, special schools still feel as if they are unable to cater for the needs of learners with ASD requiring high levels of support as indicated in the extract below:

> *"We don't seem to be equipped to cope with children with severe autism yet. We do have some children with mild autistic characteristics but I don't think we are quite ready to cope with the really severely autistic children" (School H).*

School B did not have any learners with ASD and before admitting any in the future, they felt that they would have to look at whether they had the resources to do this:

> *"We would have to do a feasibility study at our school and draw up a criteria for admitting autistic students based on the resources that we have available at the school, human resources etc" (School B).*

*Financial resources* was identified as a sub-theme under resources available. Each special school interviewed indicated that they had received R200 000 from the KwaZulu-Natal Department of Education for learners requiring a high level of support. There was considerable dissatisfaction about the fund allocation by the special schools. The following statements are examples of what the special schools said about the amount received and what they used it for:

> *"We are given R200 000 a year which is for children with high levels of support but that is insufficient when you think of how expensive some of the equipment is." (School H).*

> *"They could start by doubling the budget to R400 000 a year. I think if the groundwork is done and everyone has all the things that they need and all the equipment, then they could just maintain it. Then R200 000 would be more than enough" (School A).*

> *"We were given a budget of R200 000 which if you think about it, just for a trained autistic teacher that is a salary. We used it to buy a lot of the equipment which is very expensive and we used it to build a classroom. We were told it was a once off thing but it was for high level support learners not just autistic learners. It is not a recurring fund. They said we were supposed to use it for a teaching assistant but*

*again if you look at what you need for autistic learners, it is not enough to cover the costs and we would need that on a yearly basis" (School E).*

The situation surrounding the financial support received is unclear with some special schools believing it to be a once off fund and others seeing it as a recurring fund. Special schools are unsure as to how long the funding will be allocated to them and what will happen to the units once the funding stops. The special schools also see it as a fund allocated for the purpose of supporting learners requiring high levels of support which would include learners with ASD but not be limited to learners with ASD. This is illustrated in the statement made by School C:

*"Schools were all given R200 000 but it is for high levels of support not always just for autism. But we were told it had to be for equipment etc. What some of these schools had to do was build an extra classroom and there are often problems with facilitators and extra staff for that."*

From the questionnaires, it was observed that special schools used the funding predominantly for resources and training needs (four out of nine special schools). This was followed by building physical structures (two out of nine special schools) and salaries (two out of nine special schools). Two special schools did not respond to this question. Each special school used the funding according to deficits that they had in the special school. This makes it difficult to determine if the funding was sufficient as special schools vary in the degree of preparedness to cater for learners with ASD. Some special schools had to start with establishing physical resources such as classrooms while others were able to use it for materials or teacher training. This is indicated in the following figure:

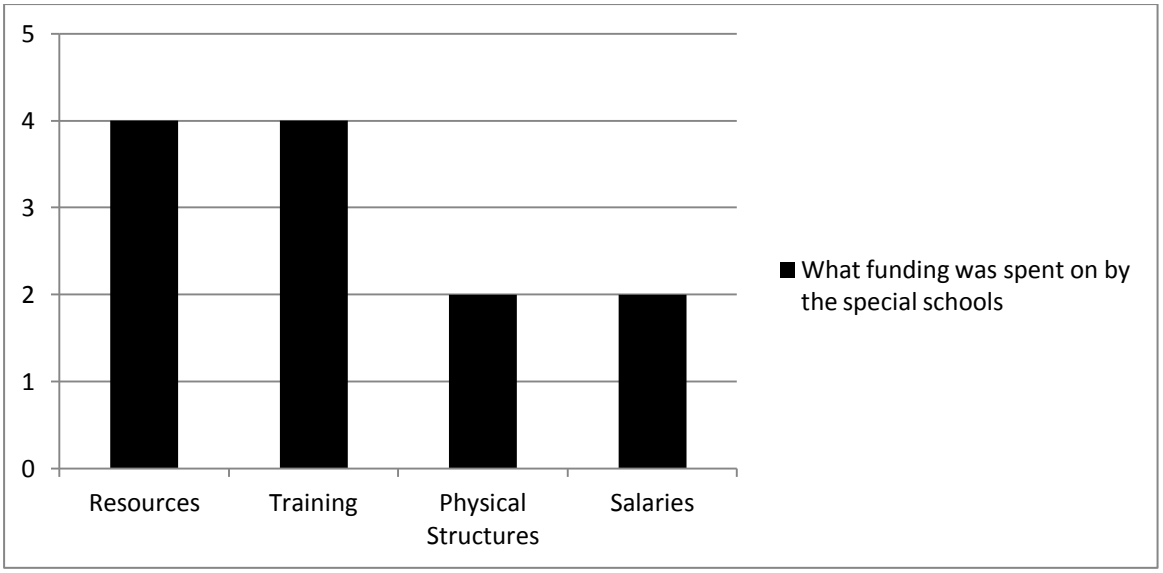


*Figure 8.* Uses of the Allocated KZN DoE Funding by Special Schools

***Teacher training.***

This sub-theme included the various training courses that members of the special schools have attended. Having ASD specific training affects the performance of educators in the classroom. Training provides the platform from which effective teaching can occur. Learners with ASD have special needs in the classroom and these training courses enable educators to improve their skills in educating learners with ASD. Training was generally found to be lacking in the special schools with no distinction being made with training specifically for educators and for support staff. Five of the nine special schools have staff members who have undertaken the Fish Bowl training course. Four special schools had not attended any training courses. Other training courses that had been attended were Makaton, Augmented and Alternative Communications (AAC), the Board Maker course, Picture Exchange Communication System (PECS), Vera, ADOS and TEACCH. Other ASD courses that some of the special schools felt would be beneficial are Interface, Triad and sensory integration training. Courses undertaken are indicated in the following figure.

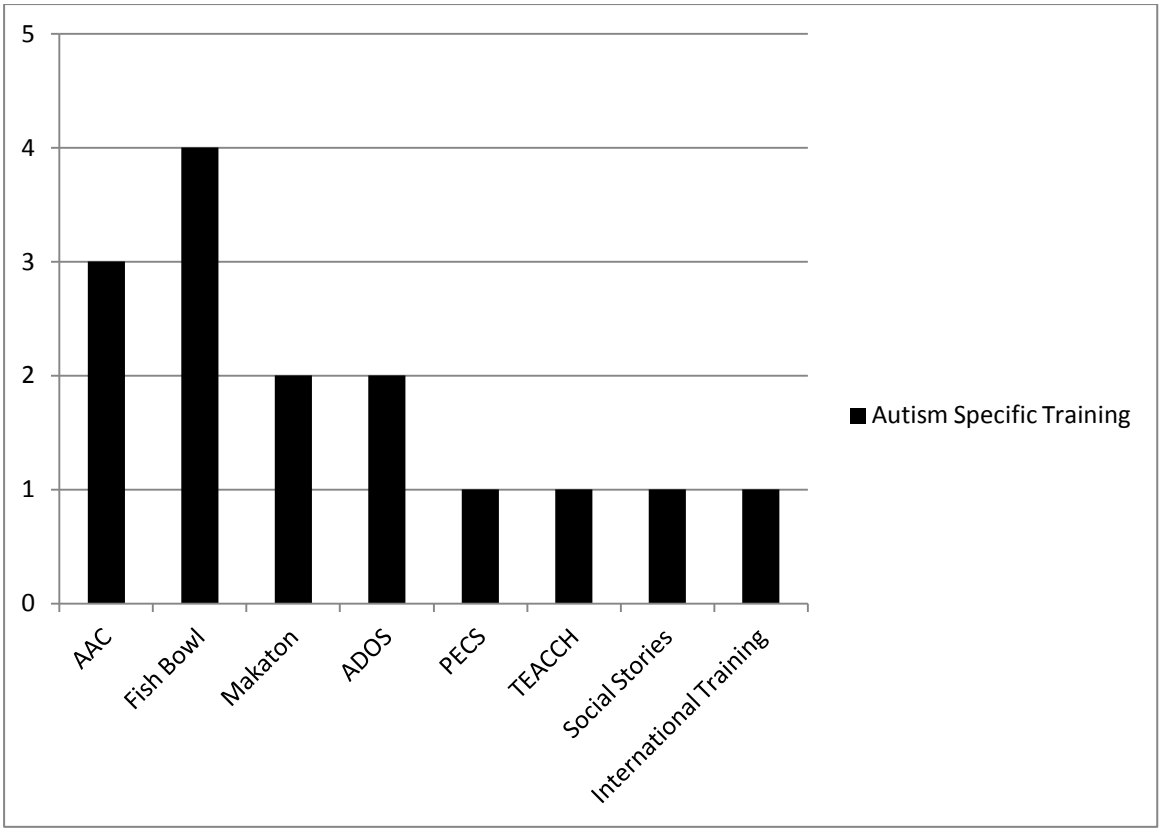


*Figure 9*. ASD Specific Training Undertaken by Staff Members of Special Schools

Fish Bowl and AAC are the most commonly attended courses. ADOS was mentioned by the special schools but it is a diagnostic measure for ASD and not an intervention programme.

As was found in the study, special schools lack resources (human, physical and financial) and need further training opportunities. This casts doubt on the roles that these special schools are able to play in the implementation of WP 6. Special schools are supposed to be able to act as resource centres to other schools but if they do not have the capacity and the resources to support other schools, they will not be able to fulfil this function as mentioned in WP 6.

**Admission process.**

The second primary theme, the *admission process*, is a combination of all the sub-themes that emerged with regard to the admission of learners with ASD into a special school. Four sub-themes were identified using a thematic analysis of the data. The sub-themes gave insight into the many aspects that need to be taken into account when admitting a learner with ASD into a special school. The sub-themes are admission criteria, diagnosis and assessment of ASD, autistic spectrum and intervention strategies.

School B for example did not have any learners with ASD in the special school and as such, they did not have an admission policy in place for learners with ASD.

> *"We need guidelines on the admission process for autistic learners or we would have to draw up guidelines on the requirements. It would also affect staffing required" (School B).*

Another special school makes recommendations to other special schools that have the resources available in the event that a learner with ASD comes to the special school.

> *" We have never really admitted an autistic child because the parents do want the best for their child and that is where they will take their child after speaking to us" (School F).*

***Admission criteria.***

*Admission criteria* includes the guidelines that are followed in the admission process. The following quotes illustrate this:

> *"It comes down to the level of functioning and which end of the spectrum they fall in. We also look at behaviour. We cannot accept a child if they can't function in a group" (School A).*

*"We look at how far on the spectrum they are because to try and accommodate a very autistic child into a classroom that isn't solely an autistic unit is a huge charge" (School G).*

*"Basically we have our set guidelines that we use but the team looks at the child as an individual and if the team will be able to cope. If they are able to provide a facilitator we are better able to cope with these ones" (School E).*

Generally, the admission criteria that the special schools follow are determined by the facilities and resources that they have and whether they will be able to accommodate learners with ASD. With learners with ASD, behaviour came across as an important factor as the learners are generally expected to be able to function independently and if not, then they require an additional resource, namely a facilitator. Admission criteria were not standardised across the different special schools and each special school determined their own admission criteria.

In five of the special schools that responded to the question on how many learners with ASD had applied for admission, a total of 29 learners who presented with symptoms of ASD had applied for admission in 2013 and 16 were not granted admission. Between 2011 and 2013, 51 learners with ASD were placed on the waiting list for admission in all the special schools combined.

Table 2

*Admission of Learners with ASD*

| Number of learners with ASD who applied for admission. | Number of learners with ASD who were not granted admission. | Number of learners on the waiting list in the past 3 years. | Numbers of learners with ASD the special school can accommodate. | Number of non-admissions in the last 3 years. |
|---|---|---|---|---|
| 29 | 16 | 51 | 64 | 65 |

***Diagnosis and assessment of ASD.***

*Diagnosis and assessment of ASD* formed part of the *admission process* theme. The diagnosis affects where the learner will be placed, what class they will be placed into and determines what their difficulties are. The problems that the special schools face is that many learners come to the special school without a diagnosis making it difficult to place them into an appropriate class. Most of the special schools do not have a psychologist on staff and cannot make the diagnosis themselves. This makes it difficult to place these learners into the correct class where their specific needs will be catered for. Diagnosis relies on the medical model which is still being used for placement. However, not all learners come with a diagnosis leading to the possibility of incorrect placement. This would affect the type of education that they receive. There are inherent difficulties with trying to obtain assessments for these learners with most special schools making do with the information that they have and the behaviour that they observe. Some special schools are more equipped to make a diagnosis while others do not have the necessary staff such as a psychologist or applicable assessment instruments in order to assess for ASD.

The results of the current study indicate that learners who go to School D without a diagnosis are screened using ADOS by the school psychologist and this is then used as a guideline as to which class to put them into. Each special school has their own admission process which they follow. A learner either comes to this process with a diagnosis or without a diagnosis. This process looks at where a learner is going to fit in and whether they will fit in with the programme that the special school provides (School C). This process is undertaken by the multidisciplinary team. Learners are looked at holistically and their background as well as any other pertinent information is looked at in conjunction with findings and observations made by the multidisciplinary team during the observation period. This is indicated in the following citations:

*"First of all we would look at the background of the child, the diagnosis, whether the child has a diagnosis or not and then we would take any educational, psychological or medical information on the child and then we assess that" (School C).*

*"Once that child is referred, we get that referral and look at it from a multidisciplinary team and then that child comes to the school for a three week assessment and in that time the occupational therapist, the speech therapist and the remedial teacher will see them and they will see how they function in the classroom and then I (psychologist) do an assessment and a parent interview. Then a final decision is made on whether we admit them or not" (School E).*

In the questionnaire, questions were asked surrounding the criteria in the DSM-V for ASD. Most of the learners who have an additional impairment present with a language impairment (33.33%) or an intellectual impairment (31.62%) with approximately a quarter of the learners presenting with both (25.21%). A small amount of learners (6.41%) present with other impairments such as another neurodevelopmental, mental or behavioural disorder and none presented with catatonia. Of the learners, 3.42% had an additional impairment associated with a known medical, genetic or environmental factor. These additional impairments in the current study were also taken into consideration in the admission process as these needs also need to be met by the special school.

The primary sources of referral for learners with ASD are psychologists, other schools, parents, therapists, doctors and hospitals. One special school did not respond to this question as they did not have any learners with ASD in the special school. Other referral agents are parents and the Department of Education. This is indicated in the following figure:

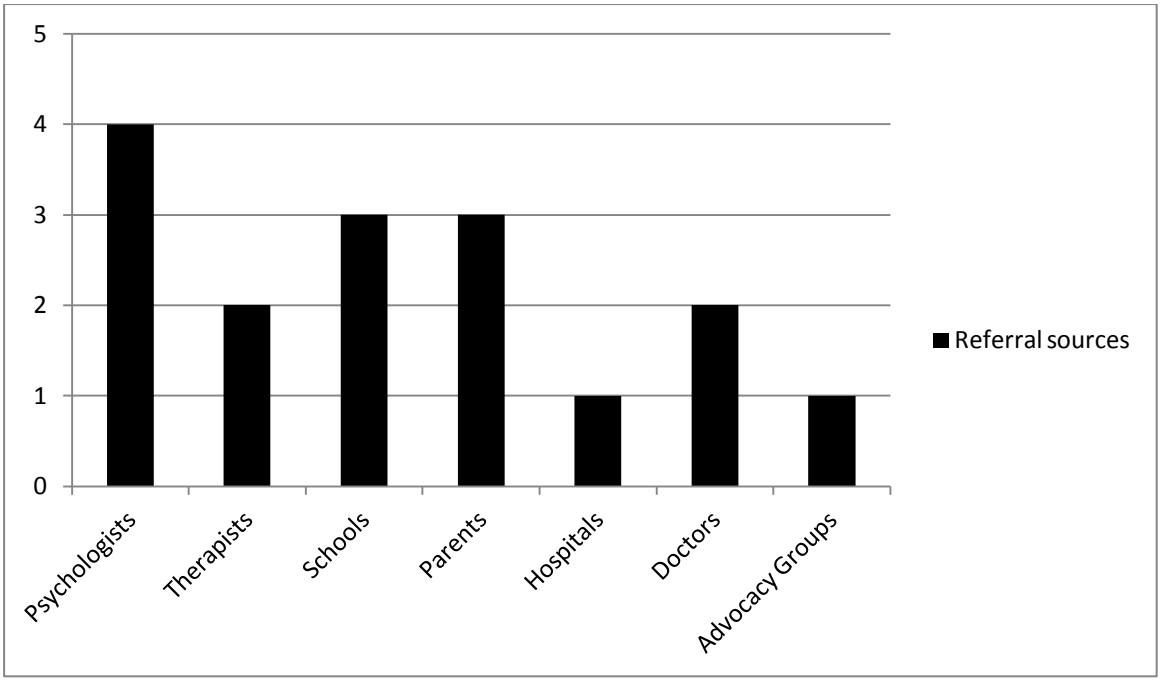


*Figure 10*. Referral Sources

Three special schools responded to the question regarding what assessment instruments are being used to assess learners with ASD. The two assessments that were used to diagnose learners with ASD were CARS (Childhood Autism Rating Scale) and ADOS. The difficulty with these assessments is that not everyone has access to them and they require specialist training in order to administer them. There are inherent difficulties for the special schools without psychologists with regard to these assessments. In such special schools, teachers could identify symptoms but could not make a diagnosis as they are not qualified to do so.

> *"With regard to ADOS, the problem is that we are not qualified to use it ourselves. We can say they have characteristics but we are not allowed to diagnose. The children are in a wide spectrum and because we know the children, we can recognise quite a few of the symptoms" (School A).*

***Autistic spectrum.***

The sub-theme, *autistic spectrum*, looked at where on the spectrum learners with ASD fell. This included whether they were high or low functioning and what level of support they required. This was important as it determined whether the special schools were able to cater for the level of support that the learner required. Special schools varied on the level of support they could provide learners on the spectrum. Accurate assessment of where these learners are on the spectrum is directly related to the level of support learners receive within the special school environment. During the admission process, special schools need to determine whether they are able to cater for the level of support that the learner requires. Not all special schools were able to cater for learners with ASD requiring a high level of support. For correct placement into a programme, where these learners fell on the spectrum and the level of support they require is important information for their admission.

The results of the level of support that each of the participating special schools could provide are indicated in the following table. Each special school varied in their response. Two of the special schools could not accommodate learners on any level of the spectrum while three special schools could provide for learners anywhere on the spectrum (learners with ASD requiring up to high levels of support). Three special schools could supply a substantial (moderate) level of support. One special school could only accommodate learners with ASD if they required low levels of support. The level of support the special schools could provide was determined by the resources that they had at their disposal. Special schools that did not have any autistic units or that did not have any teachers or therapists with ASD specific training, were not able to accommodate any learners with ASD. Support is directly related to the human and physical resources available by the special school. This level of support required was viewed in terms of the level of severity of ASD by the special schools.

Table 3

*Support that Special Schools can Provide*

| | No support | Can provide support | Can provide substantial support | Can provide very substantial Support |
|---|---|---|---|---|
| Number of special schools | 2 | 1 | 3 | 3 |

It was not the admission criteria that resulted in two of the special schools not being able to accommodate any learners with ASD but rather that they had constraining factors such as lack of resources and facilities to cater for learners with ASD. Of the special schools interviewed, 13.67% of the learners with ASD required very substantial support levels, which three of the special schools could provide. 64.96% of the learners with ASD required substantial support and 21.37% required support. The majority of learners with ASD in special schools require a substantial (moderate) level of support which 66.67% (six out of nine) of special schools could provide. This included the special schools which could provide a very substantial (high) level of support.

Many learners with ASD also require hostel facilities that are able to provide for their specific needs. Seven of the nine special schools interviewed have hostel facilities but only three of these hostels cater for learners with ASD. Resources in hostels were insufficient for learners with ASD.

***Intervention strategies.***

Sub-theme four discussed the types of *intervention strategies* used in the special schools to support learners with ASD. This relates directly to the access that they have to education that will be beneficial to them. Intervention strategies used included using a differentiated curriculum, the TEACCH programme, ABA, social stories, picture exchange,

behaviour modifications and life skills outings. Sensory rooms are used in special schools where these are available. Sensory specific equipment is available in these rooms that will enable these learners to calm down during a sensory overload (Stephenson & Carter, 2011). These multisensory environments are especially popular in the UK, the US and in Australia for learners with severe disabilities even though there is a lack of research regarding their effect on learning and behaviour (Stephenson & Carter, 2011). Learners are also presented with inclusion activities which occur mostly within the special school environment. Inclusion activities included taking part in activities attended by other learners without ASD in the special school such as sport days. Inclusion activities formed part of the support that special schools provide to learners and assists in e.g. their social development. Other activities included outings to places outside the special school environment where they had the opportunity to practice interacting in socially acceptable ways.

Intervention strategies varied greatly across the special schools and largely depended on the training that the educators had received. However, the results of the current study indicated that two of the special schools had not had any ASD specific training. This directly impacts whether the special school was able to provide support to learners with ASD as training would be required in order to provide effective intervention specific to the needs of learners with ASD. The intervention strategies that could be provided determine the type of care and education that can be provided to learners with ASD. As part of the admission process, these intervention strategies are considered in terms of whether they will be sufficient to cater for the needs of the learner applying for admission. The results of the study indicate that in general, educators have not had sufficient training in intervention techniques for the education of learners with ASD. Most special schools have had training in ASD such as the Fish Bowl course. This course introduces various intervention strategies that can be used but further training in these courses is necessary. Some respondents felt that the course

provided a sufficient introduction to intervention but was not in-depth enough and that further training would therefore be beneficial.

### Conclusion

This chapter presented the various findings obtained through the questionnaires and the semi-structured group interviews. It presented an idea of what the current situation in special schools is with regard to the admission processes that special schools follow and what access to education learners with ASD have in special schools. A discussion on these findings is presented in the next chapter.

# Chapter 5: Discussions and Conclusions

## Introduction

This chapter focuses on discussing the objectives of the study and answering the research questions in relation to current literature. This is followed by recommendations and implications for further studies, as well as the limitations of the study. It is concluded with a summary of the research findings.

In the current study, the researcher has undertaken to determine the admission process that the special schools interviewed follow when admitting a learner with ASD into the special school. The access to an education that these learners have was also investigated as well as what this access entitles them to. Special schools were sent questionnaires to obtain data on the subject matter and a semi-structured group interview was conducted in each of the nine special schools to determine different insights and experiences. The current study is a qualitative approach and the study is located within the interpretive paradigm. The findings of the research will provide insight into the current situation surrounding the topic.

## Access to Education in Special Schools

It was evident in the current study that special schools did not have sufficient facilities and resources to cater for learners with ASD, thus limiting the number of learners who are admitted in special schools. Lack of access to education for learners with ASD is not just a problem in South Africa, it is an international phenomenon. Over the last five years, the incidence of ASD has increased by over 500% (SNAP, 2012). Schools need to adjust to accommodate the influx of learners with ASD into schools, primarily into special schools.

Accomplishing this requires that a level of preparation by the special schools is achieved. Resources, training, facilities and financial resources need to be considered and

developed before learners with ASD can be admitted into an environment where their needs can be met. As it was evident in the current study, when special schools did not have these facilities and resources established they were not able to admit learners with ASD into their schools. It seems that the special schools in the study are still in the process of developing their resources. Lack of access to education was a subject of discussion at the inception of WP6 on Inclusive Education (Naicker, 2002). The under preparedness of special schools not only affects the admission of learners with ASD but also affects the admission of other learners with disabilities in general. According to Donohoe and Bornman (2014), about 70% of learners of school going age with disabilities are not catered for in the education system. The current study confirms the systematic exclusion of learners with ASD in education in special schools in the province of KwaZulu-Natal. More than 51 learners have been kept on waiting lists over the three year cycle between 2011 and 2013. It is therefore vital to ensure that special schools have adequate resources available to them so that learners are admitted into the schooling system. Similar to the current study, a lack of resources was also experienced in all the schools investigated by Heeralal and Jama (2014). These schools had no resources or infrastructure available to implement Inclusive Education which hampers the implementation of WP6. The same implications can be applied in the current study that indeed lack of resources is a major deterrent in the realisation of the vision of an Inclusive Education advocated in WP6.

The results of the current study indicate that learners with ASD also presented with additional impairments such as language or intellectual impairments. This further complicates the admission process as learners do not necessary only present with ASD and often have additional impairments. Memari, Ziaee, Mirfazeli and Kordi (2012) highlight the importance of taking into account the impact of comorbid conditions on learners' social, behavioural and academic skills. Learners with a variety of impairments pose additional challenges to the

members of staff involved in their education. These additional impairments could also impact their admission if the special school does not have the resources to assist with those impairments (Memari et al., 2012). It is important to be aware of and understand the nature of the impairment or impairments so that effective and efficient intervention can be provided to learners with ASD. Kim, Freeman, Paparella and Forness (2012) found that 30% to 80% of learners with ASD have a comorbid psychiatric diagnosis and that at least a third of learners with ASD have a comorbid emotional or behavioural disorder. Studies by Matson and Neberl-Schwalm (2007) found that comorbid conditions can increase the difficulties that learners with ASD experience with regard to their social, communicative and behaviour skills. The results of the current study confirms that additional impairments also impact learner admission if the special school does not have the resources to assist with those impairments and the additional intervention that will be required for the comorbid conditions.

**The admission criteria used by the special schools.**

As was evident in the current study conducted, the admission criteria is largely influenced by the resources that the special school has available. Before a learner with ASD is admitted into the special school, the special school has to determine if they will be able to cater for their needs. The resources that the special schools are able to provide determine the access to education that individuals with ASD have.

A facility such as an autistic unit or a special needs unit which is able to accommodate learners with ASD is required before such learners are able to be admitted. As the study indicated, not all special schools had an autistic unit and subsequently they were unable to admit any learners with ASD into the special school. Special schools also need to have suitably qualified staff members to educate learners with ASD. Qualifications aimed at direct intervention strategies for ASD are essential for effective early intervention of ASD. As the

SNAP survey (2012) showed, 48% of learners diagnosed with ASD could be placed into mainstream schools at some stage if they received intervention early enough. According to the National Research Council in the United States, learners should begin receiving specialised treatment as soon as the assessment and intervention team suspect that the learner may have ASD (Schwartz & Sandall, 2010). Boyd and colleagues (2010), (as cited in Schwartz & Sandall, 2010) found that comprehensive treatment models required between 15 and 25 hours of intervention per week.

At this stage in the implementation of WP6, it seems that the number of suitably qualified staff members is still inadequate in the special schools that were sampled in the current study. This directly affects the ability of the special schools to provide effective intervention for learners with ASD. If special schools do not have staff members trained in intervention strategies for learners with ASD, they will fail to admit learners with ASD if they are unable to provide them with an education suitable for their needs (Memari et al., 2012).

Trained school staff and facilities available to ASD learners varied across the different special schools. The special schools found both physical and human resources lacking in general. However, some special schools were able to compensate with the resources that they had available or made their own resources. The results of the Canadian study on the inclusion of children with ASD in mainstream classrooms highlights the need to provide more resources, training and support in order to improve the education of learners with ASD (Lindsay, Peoulx, Thomson & Scott, 2013).

Special schools also took into account the level of severity of the ASD as part of their admission criteria. WP6 (Department of Education, 2001) requires that special schools admit learners who require high-intensive educational support. In the current study, this refers to

learners with ASD requiring a high level of support. Even though this implies that special schools have to provide educational support for learners with ASD requiring a high level of support, it was clear in the current study that most of the special schools needed more resources before they would be able to cater for learners with ASD requiring a high level of support. Special schools took the level of severity of the ASD into account as outlined in WP6 but for a different reason. Instead of requiring the learner to display a need for a high level of support for admission, the special school had to consider whether they were able to provide for a high level of support. If they were not able to, this resulted in a non-admission into the special school. As a result, the level of severity of the ASD is still being considered as a criterion for admission. In order to determine the level of severity, special schools either do an assessment such as ADOS or CARS if they are able to or they ask for reports from previous assessments and evaluations. If no diagnosis is possible, the level of severity is gauged during the course of the assessment period in an informal manner. The four most widely used measures for assessing ASD in toddlers are ADOS-G, CARS, ADI-R (Autism Diagnostic Interview-Revised) and clinical judgement based on the DSM criteria (Ventola et al., 2006). This is in line with the findings of the current study as the most common assessments used in the current study were ADOS and CARS.

Special schools still appear to be using the medical model in their admission process in that a diagnosis is still preferred in order to place learners into the correct class. Before Inclusive Education, the medical model was the dominant model used for assessing learner's limitations. This model was used for special needs and viewed disability as an individual condition and resulted in separate education for learners with disabilities (Meltz, Herman & Pillay, 2014). WP6 aimed to facilitate a philosophical shift away from this medical model and view of a disability as being inherent in the individual towards a social model which is based on social justice (Meltz et al., 2014). The social justice model is a means in which to change

the discourse around individuals with disabilities through changing the attitudes, values and beliefs of society causing disabilities. The social model also strives at achieving equality in education and society for individuals with disabilities or difficulties (Meltz et al., 2014). Moving away from the medical model allows disabilities to be understood in terms of how they have been shaped by the environment and external barriers (Naicker, 2002). The Department of Education (2005c) expects special schools to admit learners based on the level of support that they need and not according to their disability. This is a move away from the medical model. Learners are, however, still being admitted based on the type of disability as one of the main criteria for admission. A study performed by Heeralal and Jama (2014) in the Eastern Cape province of South Africa affirms the findings of the current study. These researchers found that educators still viewed barriers as coming from within the learners which is in line with the medical model.

A diagnosis according to Schwartz and Sandall (2010) provides access to services. In the current study, a diagnosis of ASD results in the possible admission into the autistic unit of a special school if they have one or into a special needs class where their needs will be met. Thus, the sooner a learner suspected of having ASD is diagnosed, the sooner they are able to receive intervention. As found by Dawson et al., (2010) ASD is responsive to early intervention. According to the results of the current study, very few learners come to school with a diagnosis and less than half the special schools investigated have psychologists on staff who are able to make a diagnosis. Dawson and Osterling (1997), (as cited in Klinger and Renner, 2000) also found that early intervention presented with better outcomes for the development of language and school placement into mainstream classrooms. It is evident that most of the learners who present for admission in special schools in the province of KwaZulu-Natal are unable to benefit from these early interventions due to delays in the diagnosis of ASD, thus resulting in poor prognosis.

**The admission process followed by the special schools.**

Even though the Department of Education has a policy outlining the process of identifying, assessing and enrolling learners into special schools, referred to as the SIAS document (Department of Education, 2014), none of the special schools interviewed mentioned using this policy document in their admission process. The admission process included admission criteria, diagnosis and assessment of ASD, autistic spectrum and intervention strategies. Each special school had a set of criteria that determined their admission process. These criteria are established to ensure that the special school is able to accommodate the learner according to what they are able to provide. Criteria are determined by the special school's admission policy which is set by the special school and its governing body. Special schools looked at e.g. the level of functioning of the learner as well as where on the spectrum they fell. Another aspect of the process entailed evaluating whether the special schools intervention strategies were suitable for the needs of the learner with ASD. The final decision on whether the learner with ASD could be accommodated by the special school was made by the multidisciplinary team in each of the special schools. This system of looking at admission was found to be common practice amongst the special schools investigated in the current study. With the Inclusive Education model, there should be a change in the special schools admission policies to no longer look at the medical explanation for a disability such as what disability they have, to looking at what barriers to learning the learner experiences (Department of Education, 2005c). This requires that special schools follow a new approach in their admission of learners to basing admission on whether the learner requires a high level of support and not what category of disability they have (Department of Education, 2005c). Special schools may no longer admit learners requiring a lower level of support than what the school is staffed and equipped for (Department of Education, 2007).

Of concern with the admission process is the large number of learners with ASD on the waiting list for special schools as well as non-admissions. Of the special schools that responded to the question relating to the waiting lists, there were 29 learners who had applied for admission and 16 had not been granted admission. In the last three years, 51 learners had been on the waiting list and 65 had not been granted admission in the last three years. In the special schools that responded, 64 learners could be accommodated yet only 29 had been granted admission. This shows that generally there is space for learners with ASD in the special schools but the special schools are not always able to cater for the needs of some learners with ASD, resulting in their non-admission into the special school. Admission is dependent on the numbers at each individual special school but if special schools had adequate resources, facilities and training, they would be able to admit more learners with ASD. However, the Department of Education's guidelines to ensure quality education and support in special schools and special school resource centres paints a different picture of what is allowed in the admission process to what is actually happening (Department of Education, 2007).

These guidelines state that with the admission of learners into special schools, learners may only be admitted if they have been assessed to be in need of a high level of support (Department of Education, 2007). A special school may also only admit a learner if the special school is able to provide support in the area of specialisation that the learner requires (Department of Education, 2007). At the same time, a learner may not be refused admission based on the severity of their needs. Thus, learners with ASD requiring a high level of support cannot be refused admission into a special school but the special school may only admit them if they are able to provide support in that area of specialisation. So if the special school does not have the resources to adequately provide support, they will not be able to admit the learner. In line with these guidelines from the Department of Education

(2007), learners with ASD requiring low or medium levels of support need to be accommodated in ordinary schools and full-service schools as special schools should only be admitting learners requiring a high level of support.

With the admission process, the parents or guardians first come to the special school for an intake interview where the learner's background information and other reports from doctors, therapists etc. is obtained. The learner is then admitted into the special school for an assessment period. The duration of the assessment period is determined by the special school and varies from school to school but is typically between one and three weeks in duration. During this assessment period, the learner is evaluated by various members of the multidisciplinary team. Once the assessment period is completed, the multidisciplinary team holds a meeting to discuss the outcomes of the various evaluations and together they determine if the special school will be a suitable placement for the learner and if they will be able to accommodate the needs of the learner. The admission process that is commonly followed by the majority of the special schools is summarised in Figure 11 on the following page:

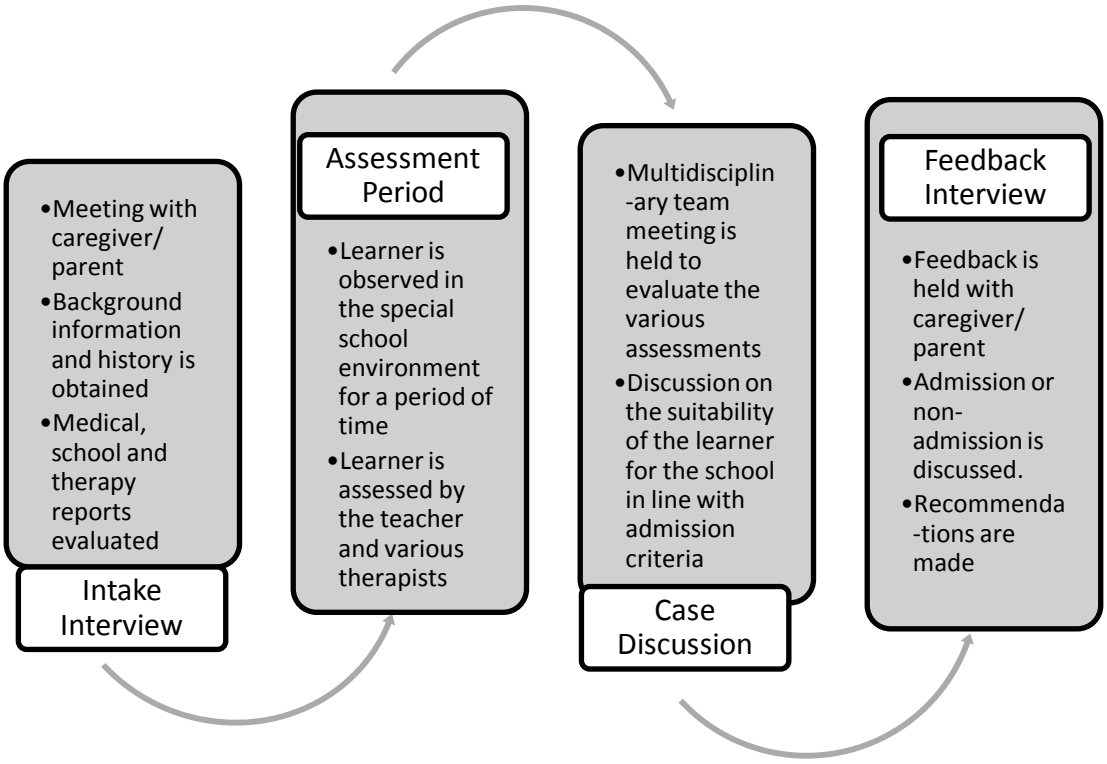


*Figure 11*. The Assessment Process

These multidisciplinary teams followed various policies which guided their admission process. It was concerning to note that the SIAS policy guideline and tool (Department of Education, 2008), which is supposed to inform the admission process, was not mentioned by any of the special schools as part of their admission process. The policy guidelines for special schools as resource centres states that before learners are considered for admission in a school, they need to go through a screening and assessment process based on the SIAS strategy (Department of Education, 2007). According to the Department of Education (2008), the screening, identification and referral of learners to special schools lacks a consistent approach. This was reinforced by the current study. Some policies were taken into account when making decisions but special schools also had to look at the level of support they were able to provide. Only three of the nine special schools could provide support for learners with ASD requiring a high level of support. As special schools, they should all be able to cater for

learners requiring a high level of support (Department of Education, 2001) but the reality is that they do not yet all have the capabilities to do so. Special schools are still developing their resources and facilities and more staff training needs to occur before all the special schools will be able to cater for learners with ASD who require a high level of support.

**Intervention strategies used for ASD.**

As the number of cases of individuals with ASD increases worldwide, there is a corresponding increase in the number of intervention strategies being developed to treat ASD. There are many fad treatments which do not have research support and which are dangerous for several reasons (Zane, Davis & Rosswurm, 2008). Fad interventions waste valuable time that learners with ASD do not have. Spending time on unproven interventions takes time away from interventions that have been proven to facilitate positive change (Zane, Davis & Rosswurm, 2008). Correct intervention is therefore vital.

The main mode of therapy according to Mubaiwa (2008) in the education of learners with ASD is ABA (Applied Behaviour Analysis) and TEACCH. In the study, no staff members were trained in ABA and only one had training in TEACCH. There is a considerable lack in training undertaken with regard to direct intervention strategies. Fish Bowl was the most well attended course followed by AAC. Of concern is that four of the nine special schools (44%) had not attended any training courses. The concern for lack of training has been highlighted in a study conducted by Ladbrook (2009) on challenges experienced by educators in primary schools classrooms in South Africa. One of these challenges was that staff members still felt that they lacked adequate skills to adapt to Inclusive Education (Ladbrook, 2009). Stofile (2008) stated that teachers found that training courses on accommodating learners and teaching learners with disabilities are helpful but insufficient.

These programmes typically focus on developing a few skills but more comprehensive programmes are required (Donohue & Bornman, 2014).

The importance of adequate training is therefore vital to establishing some of the necessary skills. Even though special schools are attending courses on ASD, the type of course needs to be taken into consideration. All staff involved in the education of learners with ASD should be attending courses to improve their awareness of ASD and those involved in the direct intervention of ASD should be attending courses such as ABA and TEACCH as suggested by Mubaiwa (2008) above.

According to Donaldson et al. (2014), no specific intervention has yet been found to be the most effective intervention strategy for learners with ASD. However, the most empirical support is given to strategies based on ABA (Donaldson et al., 2014). The Picture Exchange Communication System (PECS) is an example of an augmentative and alternative communication system (AAC) which is used to improve the functional communication skills of learners with ASD (Donaldson et al., 2014). PECS is an evidenced based mode of intervention for learners with ASD and is a form of an ABA-based method often used in the schooling system (Donaldson et al., 2014). In research undertaken by Smith (2008), ABA in particular has been found to be a successful intervention for ASD. In South Africa, ABA is a relatively new concept and there are very few qualified behaviour analysts (Behaviour Therapy South Africa, 2014). Brentani et al., (2013) indicated that any intervention programmes based on ABA are currently viewed as first-line treatments options for early childhood intervention of ASD.

In the current study, some special schools used sensory integration training (SIT) as an intervention for learners with ASD. The use of weighted vests and sensory rooms are examples of therapies used in SIT. SIT is a very popular treatment intervention for ASD and

is used for this purpose by more than 82% of Occupational Therapists from Australia who participated in a study undertaken by Kader, McDonald and Lentin (2012). However, SIT has no empirical support and should be viewed as a fad therapy according to Zane, Davis and Rosswurm (2008). Lang et al., (2012) performed a systematic review on SIT for ASD and also found that there is no evidence-base supporting the use of SIT in the treatment of learners with ASD. It is important for special schools to therefore evaluate the intervention strategies which they are using to determine if they are evidence-based and have proven to be effective in the intervention of learners with ASD.

**Support needed in special schools.**

Special schools need support in terms of resources. These included physical resources, human resources and financial resources. The special schools investigated were all at a different level of preparedness with regard to the resources which they had available.

Physical resources included structures such as classrooms for an autistic unit. Not all special schools have an extra classroom and two of the special schools built a classroom for an autistic unit. One special school did have the physical space for an additional classroom while another had the facilities but not the staffing. This poses challenges to the development of autistic units. If special schools are able to build an autistic unit, the funding received will not be enough to then still set up the rest of the unit. Special schools that do not have the physical space to set up a unit have to convert an existing room into an autistic unit which may not be feasible. Special schools in general are however making a plan to accommodate learners with ASD or are in the process of setting up dedicated autistic units. Other physical structures that they felt would be beneficial included sensory or relaxation rooms where learners with ASD could go to when they are over stimulated. Of concern is that there is no research supporting the use of sensory rooms and SIT in the treatment of ASD (Zane et al.,

2008), yet some special schools are using SIT as a mode of intervention. Physical resources also encompassed equipment required for the setting up of an autistic unit. Special schools recommended various resources which would be beneficial to the education of learners with ASD. The lack of resources and facilities which they experienced is not an isolated situation in the South African context as was previously indicated by Heeralal and Jama (2014).

Human resources included staff trained in intervention strategies for ASD. The problem is that in South Africa, most schools do not have adequate resources and very few schools offer specialised intervention programmes such as PECS, Makaton or TEACCH (Travis & Geiger, 2010). This was confirmed in the current study where the special schools stated that they lacked resources and there was evidence that there was insufficient training in ASD in the special schools resulting in a lack of specialised intervention programmes. Special schools recommended that further training courses should be attended such as interface, triad and sensory integration training. None of the special schools recommended ABA and TEACCH as intervention strategies which should be considered as suggested by Mubaiwa (2008).

Financial resources included the funding received by the Department of Education. Special schools receive additional funding from organisations, individuals and school fundraising activities. According to the South African Schools Act of 1996 (Republic of South Africa, 1996), it is the responsibility of the school governing body to supplement the funding received from the state in order to improve the quality of education which the school can provide. This funding is used to supplement the money received from the Department of Education and is used for various undertakings such as the running of the special school, salaries, building infrastructure and for resources. This additional funding helps improve the facilities and the provisions that the special schools are able to provide. In a study done by Donohue and Bornman (2014) on the challenges of realising Inclusive Education in South

Africa, they found that schools needed an increase in funding so that they could make the infrastructure changes that are needed in order to implement Inclusive Education. The funding from the Department of Education was deemed insufficient as some of the equipment for autistic units is very expensive and the funding was also used for salaries in some instances. Stofile (2008) found that one of the reasons for the delay of Inclusive Education in the schools is the lack of funding and appropriate resources. A lack of funding affects the physical upgrading of school buildings, the acquisition of materials for learning support and physical equipment (Stofile, 2008). The funding itself was also of concern as special schools were unclear about whether it was a recurring fund or a once off amount. Members of the special schools recommended that the funding be doubled or increased initially until special schools had developed physical resources and infrastructure needed to develop autistic units or special needs classes. Once the initial set up had been achieved, some special schools felt that the amount of funding that the Department of Education is providing would be suitable. They also recommended that clarity needed to be made on the nature and duration of the funding by the KwaZulu-Natal Department of Education.

Bronfenbrenner's ecological model can be used to indicate that there are multiple systems that should be taken into consideration when making decisions regarding the admission and access to education for learners with ASD into special schools in the province of KwaZulu-Natal. The current study found that even though individuals are aware of the various systems, some systems are being disregarded in the evaluation of whether a learner with ASD should be granted admission and access into a special school. However, there is little evidence of the influence of the exosystem and the macrosystem on the admission process.

**Recommendations**

The following recommendations are made in response to the information gained from the current study. The recommendations are based on the findings of the current study. The purpose of the recommendations is to improve the access and admission of learners with ASD into special schools.

ASD requires specific intervention strategies for it to be successful. Special schools are required to admit learners requiring high levels of support, including learners with ASD. Special schools are in the process of setting up autistic units or are incorporating learners with ASD into their special needs classes. Setting up designated autistic units would widen access to education for learners with ASD. The special schools investigated were all at different levels of preparedness with regard to being able to admit learners with ASD, with some special schools not being able to admit any learners with ASD while others are able to cater for learners with ASD requiring a high level of support. There is a lot of variation with regard to the training programmes that therapists and teachers have attended as well as what intervention strategies the special schools use. It is recommended that all staff members who are involved with learners with ASD undertake training courses on ASD. Intervention has been found to be highly effective in the outcome of ASD as was found by Dawson and Osterling (1997), (as cited in Klinger & Renner, 2000). They found that early intervention improved the development of language in a learner with ASD. This training should focus on two aspects. Training for staff to enhance their knowledge about ASD and training for the educators and some therapists to learn intervention strategies for ASD. The human and physical resources in general were also found to be insufficient. The most important resources for improving access to education for learners with ASD, would be firstly to have a specific unit where the intervention can be provided and then to have staff members who are

able to provide ASD specific intervention. Once a special school has this in place, other resources can be developed and sourced to supplement the intervention.

The KwaZulu-Natal Department of Education has provided funding to assist with developing resources for ASD in the special schools. However, as was mentioned in the current study, this funding was for the use of learners requiring a high level of support. If the Department of Education wants autistic units developed properly, the funding should be deemed for this purpose. It would be beneficial to develop a list of the resources required to set up an autistic unit so that special schools are able to set up a unit that is sufficient for the needs of the learners with ASD. This list could be seen as a guideline to assist special schools and the amount of funding received could be aligned with the cost of developing the capabilities of the special school in terms of ASD. It is also recommended that the funding is specified to ensure that some of the funding is used for attending training courses and programmes on ASD and not just on physical resources. The cost of the additional salary or salaries required for the new autistic units also needs to be considered by the Department of Education.

It is recommended that special schools that have not broadened their capabilities to include learners with ASD should start developing their resources in order to do so. Many of the special schools have hostel facilities but only three of the hostels are able to cater for learners with ASD. It is recommended that special schools develop the capabilities of the hostels to facilitate learners with ASD. If the statistics on the increasing prevalence of ASD in South Africa is anything to go by, special schools will need to be able to accommodate an increasing number of learners with ASD into their schools.

At this point in time, the admission process that is followed is determined by each of the special schools. The criteria for admission are determined by each special school and are

aligned with some of the policy documents for education in South Africa. There was no mention of the SIAS guidelines by any of the special schools and it is recommended that they relook at their admission process to align it with the guidelines set out in the SIAS document. Special schools are still using the medical model and the process of categorising a learner according to their disability which is not in accordance with WP6. In order to reach the stage where learners can be admitted based on the level of support required and not according to disability, special schools need to have the resources, training and facilities in place first so that these do not become barriers within the special school to them providing access to education for learners requiring a high level of support. The lack of resources and facilities experienced by special schools in the current study is therefore a great concern as it directly influences the ability of the special school to act as a resource centre and provide the education that they should be providing.

**Recommendations for further research.**

There are many different intervention programmes available for learners with ASD. In special schools, it would be recommended to follow evidence-based intervention techniques. Further research could explore the possibility of recommending specific intervention programmes in the public school sector. If special schools used the same intervention, learners would also be able to move from one special school to another.

Further research could also be undertaken on a comparison between the access and admission of learners with ASD in urban versus rural special schools. Many learners with ASD come from rural areas and would attend rural special schools. Thus, it would be important to determine if their resources and facilities are in line with those in urban areas.

Further research on the implementation of policies such as SIAS and the feasibility of implementing these policies in special schools could be investigated. As was evident in the

current study, special schools are not utilizing the SIAS policy in their admission process and this policy is not being put into practice by the special schools.

It would be beneficial to repeat this research in historically disadvantaged and under resourced schools to obtain comparative data. It would also help determine if there are any supplementary issues that are experienced in these schools in comparison to the more resourced schools. This would also give more insight on the gaps and specific needs that have to be addressed due to the past education system of South Africa. Such a study can also be helpful to establish common practices that should be promoted to promote better access for learners in special schools.

**Limitations**

It was expected to have difficulties getting the special schools to participate but all the special schools selected participated and there was no animosity experienced regarding participation. Not all special schools completed all the questions in the questionnaire which posed some challenges with the analysis. If the questionnaire had contained more closed questions, more data points could have been collected and the research could have been extended to a mixed methodological approach. However, the questionnaire did not lend itself to any univariate statistical analysis. The questionnaire should also have had more closed ended questions to avoid confusion. This could have been avoided if a pilot study had been undertaken.

Using purposive sampling is also a limitation of the current study as it limits the ability of the study to make generalisations to the overall population.

**Conclusion**

Findings from the current study will be invaluable for determining what needs to be done in the future to cater for the ever increasing number of learners with ASD entering the school system. The research also allowed for gaps across the various special schools to be identified with regard to whether they are able to provide access to education and what resources they have available and what level of support they are able to provide. In line with the Inclusive Education policy, special schools should provide for learners requiring a high level of support (Department of Education, 2001). If this intervention is provided early enough, 48% of these learners with ASD will be able to move to a mainstream school (SNAP, 2012). It is therefore vital to ensure that special schools are adequately prepared to admit learners with symptoms of ASD and provide them with access to an education that is tailored according to their specific needs.

In the process of implementing the policy of Inclusive Education as outlined in WP6, special schools are no longer categorised according to disability but according to the level of support that they can provide (Department of Education, 2005c). Special schools have been decategorised into resource centers' so that they cater for learners of all disabilities but are still required to specialise in a combination of areas (Department of Education, 2007). Thus, even though special schools are being decategorised, access to education is still following the system that was in place prior to Inclusive Education where learners are admitted according to type of disability and whether the special school caters for that disability. The access to the special school is determined by the resources the special school has available, whether there are teachers trained according to that disability and whether the special school has the staffing and the facilities available to cater for that disability. With regard to ASD, not all special schools have the resources yet to provide access for learners with ASD.

The difficulties with implementing Inclusive Education as outlined in WP6 are not a uniquely South African problem. According to Donohue and Bornman (2014), many countries worldwide have struggled to implement Inclusive Education. Frankel, Gold and Ajodhia-Andrews (2010) argued that for inclusion to be implemented successfully, educators needed to be adequately trained, sufficient support is required and positive attitudes were needed. More focus needs to be placed on training and support given to special schools if these schools are expected to effectively implement Inclusive Education.

Special schools have received funding for high level support learners and some special schools have used this funding to build classrooms, develop resources, employ additional staff and attend training programmes on ASD. However, this funding was allocated for learners requiring a high level of support and not directly for ASD. Special schools also felt that this funding was insufficient. In order to ensure that the special schools use this funding directly for learners with ASD, the directive from the Department of Education needs to specify that it is for the use of learners with ASD. This would ensure that each special school develops an autistic unit. Currently only two of the nine special schools interviewed had autistic units. Special schools are trying to expand and change beyond a particular category. It is pleasing to see that special schools are trying to acknowledge that there are learners of other disabilities and hence they are trying to broaden their scope. If special schools are to decategorise, then this needs to occur for each disability.

ASD is a neurodevelopmental disorder which as was indicated before, responds well to early intervention and this intervention results in 48% of these learners being able to move into mainstream education (SNAP, 2012). As is evident from the current study, most special schools still lack the resources to be able to effectively admit learners with ASD requiring a high level of support. Special schools that do not have a dedicated autistic unit still need to develop such a unit. The first step in improving the access to education for learners is the

development of resources. Access to education is dependent on the human, physical and financial resources available. Thus, until all the special schools have a dedicated autistic unit with staff that are able to provide an adequate and appropriate education to learners with special needs, access to education for learners with ASD will be limited.

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## Appendices

### Appendix 1: Letter to the Principals with Questionnaire


# COLLEGE OF HUMANITIES

12 June 2013

To the Principal

As part of the research component for a Masters Degree in Educational Psychology, I am conducting research in a certain number of special schools in the province. I have attached a letter from the Department of Education giving me permission to conduct research in your special school. I would greatly appreciate it if you could complete the questionnaire attached and allow me to come and interview staff members for approximately 30 minutes, at a time convenient to you. The interview is a group interview that will involve any professional and non-professional individuals within the special school who work with learners with Autism Spectrum Disorder (ASD) such as occupational therapists, speech and language therapists, physiotherapists, teachers, nursing staff, social workers, child and youth care workers, psychologists, guidance and counselling specialists, sign language interpreters and individuals involved with the admission process for learners with ASD. More information is provided below.

**An investigation of access to the education system and the admission processes for learners with autism spectrum disorder in the province of KwaZulu-Natal, South Africa.**

What the study is about: The aim of the study is to determine the admission criteria used by special schools in the admission of learners with symptoms of ASD and to investigate the

processes that special schools use to admit learners. Information on the intervention strategies offered and the kind of support that is needed by learners with ASD is sought.

What will be expected of you: If you agree to be interviewed, you will be asked to take part in a group interview lasting 30 to 40 minutes. Questions regarding what intervention strategies you use and what kind of support you are able to provide to learners with ASD and what kind of support you believe is necessary will be asked. Other questions will ask about resources that you have or need as well as your opinions on the admission process. The principal or another relevant individual will also be asked to complete a questionnaire.

Risks and benefits: There are no direct risks to you participating in the study. In the event that you do become distressed due to certain issues or questions arising, the number for a counsellor will be provided to you.

Voluntary: Your participation in this study is voluntary and you do not have to feel obligated to participate in the study. Your participation would, however, be greatly appreciated. If you choose not to participate in this study, you will not be affected in any way. If you agree to participate in the study, you may decide to stop participating at any time without penalties or prejudice.

Confidentiality: All individual information will remain confidential and any information that you provide will not be able to be linked back to you. Pseudonyms will be used to refer to individuals and special schools.

Findings: Research data will be stored for a period of five years after which is will be shredded and all recordings will be incinerated. Research findings will be made available to you at the end of the study should you wish to receive feedback.

Questions: If you have any questions about this study, you may contact me on 082 854 6902 or email me at nicolabuhr@gmail.com. You may also contact my supervisor, Nontobeko Buthelezi, on 033 260 5670 or buthelezin@ukzn.ac.za . If you have any complaints about any aspect of this study, you may also contact the ethics committee of UKZN on 031 260 4557.

All individuals taking part in the study will be required to sign a consent form.

**Questionnaire:**

School name: (Will be removed once the data has been collected)

_____

General information:

*Note: According to the DSM –V, individuals with a diagnosis of autistic disorder, Asperger's disorder or pervasive developmental disorder not otherwise specified, should all be given the diagnosis of Autism Spectrum Disorder (ASD).*

1. Special school category: _____
2. Do you have a specialised ASD unit in the special school? _____
3. Please complete the following table:

| | | |
|---|---|---|
| 3.1 | Total number of learners in the special school? | |
| 3.2 | Total number of learners with ASD in the special school? | |
| 3.3 | Total number of female learners with ASD. | |
| 3.4 | Total number of male learners with ASD. | |

4. Who are the primary sources of referral for learners with ASD?

   _____

   _____

   _____

5. Number of learners with ASD who applied for admission: _____
6. Number of learners with ASD who were refused admission: _____
7. Number of learners with ASD on the waiting list in the past three years: _____
8. How many learners with ASD can the school approximately accommodate? _____
9. Number of non-admissions in the past three years: _____
10. Do you have hostel facilities? _____
11. If yes, are they able to accommodate learners with ASD? _____
12. What assessment instruments are being used to assess learners with ASD?

    _____

    _____

13. Please complete the following table for statistical purposes:

Level of severity is defined as being Level 1 (requiring support), Level 2 (requiring substantial support) or Level 3 (requiring very substantial support) and includes social communication abilities and restricted repetitive behaviours.

*E.g.*

| | *Number of learners with ASD that present with* | *No.* | *Level 3 support* | *Level 2 support* | *Level 1 support* |
|---|---|---|---|---|---|
| *13.1* | *Intellectual impairment* | *21* | *18* | *3* | *0* |

| | Number of learners with ASD that present with | No. | Level 3 support | Level 2 support | Level 1 support |
|---|---|---|---|---|---|
| 13.1 | Intellectual impairment | | | | |
| 13.2 | Language impairment | | | | |
| 13.3 | Intellectual and language impairment | | | | |
| 13.4 | Associated with a known medical or genetic or environmental factor | | | | |
| 13.5 | Associated with another neurodevelopmental, mental or behavioural disorder | | | | |
| 13.6 | With catatonia | | | | |

14. How many members of each of the following do you have on your staff?

- Teachers _____
- Psychologists _____
- Occupational therapists _____
- Speech and language therapists _____
- Counsellors _____
- Remedial teachers _____
- Teaching assistants _____
- Other _____

15. Who is on the admission panel for selecting learners with ASD?

_____

_____

16. How often do they meet? _____
17. What is their admission policy based on?

_____

_____

_____

18. What ASD specific training have any of the above personnel received?

_____

_____

19. Is there any other training identified that you feel would be beneficial?

_____

_____

_____

20. Has the special school received any funding for use with learners with ASD?

_____

21. If yes, how much funding was received?

_____

22. In which manner was the funding used?

_____

_____

_____

_____

23. Is there any additional information that you would like to mention?

_____

_____

_____

_____

Thank you for your time and effort. If there is any further information that you feel would be beneficial, please do not hesitate to send it to me.

Regards,
Nicola Buhr

## Appendix 2: Department of Education Permission Letter

education

Department:
Education
**PROVINCE OF KWAZULU-NATAL**

Enquiries: Sibusiso Alwar Tel: 033 341 8610 Ref.:2/4/8/392

Nicola Buhr
4 Wellington Place
Clarendon
Pietermaritzburg
3201

Dear Nicola

**PERMISSION TO CONDUCT RESEARCH IN THE KZN DoE INSTITUTIONS**

Your application to conduct a pilot and research entitled: **AN INVESTIGATION OF ACCESS TO THE EDUCATION SYSTEM AND THE ADMISSION PROCESSES FOR LEARNERS WITH AUTISM IN THE PROVINCE OF KWAZULU NATAL, SOUTH AFRICA,** in the KwaZulu-Natal Department of Education Institutions has been approved. The conditions of the approval are as follows:

1. The researcher will make all the arrangements concerning the research and interviews.
2. The researcher must ensure that Educator and learning programmes are not interrupted.
3. Interviews are not conducted during the time of writing examinations in schools.
4. Learners, Educators, Schools and Institutions are not identifiable in any way from the results of the research.
5. A copy of this letter is submitted to District Managers, Principals and Heads of Institutions where the intended research and interviews are to be conducted.
6. The period of investigation is limited to the period from 01 April 2013 to 30 April 2015.
7. Your research and interviews will be limited to the schools you have proposed and approved by the Head of Department. Please note that Principals, Educators, Departmental Officials and Learners are under no obligation to participate or assist you in your investigation.
8. Should you wish to extend the period of your survey at the school(s), please contact Mr. Alwar at the contact numbers below.
9. Upon completion of the research, a brief summary of the findings, recommendations or a full report / dissertation / thesis must be submitted to the research office of the Department. Please address it to The Director-Resources Planning, Private Bag X9137, Pietermaritzburg, 3200.
10. Please note that your research and interviews will be limited to schools and institutions in the Umlazi, Pinetown, Umgungundlovu and Ugu Districts of Kwazulu Natal Department of Education.

**Nkosinathi S.P. Sishi, PhD**
**Head of Department: Education**
**21 May 2013**

**KWAZULU-NATAL DEPARTMENT OF EDUCATION**
...dedicated to service and performance beyond the call of duty
POSTAL: Private Bag X 9137, Pietermaritzburg, 3200, KwaZulu-Natal, Republic of South Africa
PHYSICAL: Office G25, 188 Pietermaritz Street, Pietermaritzburg, 3201. Tel. 033 3418610 Fax : 033 341 8612
EMAIL ADDRESS: sibusiso.alwar@kzndoe.gov.za; CALL CENTRE: 0860 596 363;
WEBSITE: www.kzneducation.gov.za

**Appendix 3: Informed Consent Document**


## COLLEGE OF HUMANITIES

**Informed Consent Form**

Date: _____

**Informed Consent Form: An investigation of access to the education system and the admission processes for learners with autism spectrum disorder in the province of KwaZulu-Natal, South Africa.**

(Part of the research component for a Masters Degree in Educational Psychology)

With the re-categorisation of special schools into special school resource centres, a range of new difficulties have arisen as special schools are now required to accept learners regardless of their category of disability. The number of learners born with ASD in South Africa has increased by over 500% in the last five years and of these learners, only 0.1% with ASD are in effective educational settings. The White Paper 6 on special needs education policy outlines the process of identifying, assessing and enrolling learners into special needs schools but the guidelines provided do not align with the resources available at the school level. As members of special schools, you have been selected due to your experience and knowledge regarding the range of difficulties that you experience in implementing the requirements of White Paper 6, in particular for learners with ASD.

What the study is about: The aim of the study is to determine the admission criteria used by special schools in the admission of learners with symptoms of ASD and to investigate the processes that special schools use to admit learners. Information on the intervention strategies offered and the kind of support that is needed by learners with ASD is sought.

What will be expected of you: If you agree to be interviewed, you will be asked to take part in a group interview lasting 30 to 40 minutes. Questions regarding what intervention strategies you use and what kind of support you are able to provide to learners with ASD and what kind of support you believe is necessary will be asked. Other questions will ask about the resources that you have or need as well as your opinions on the admission process. The principal or another relevant individual will also be asked to complete a questionnaire.

Risks and benefits: There are no direct risks to you participating in the study. In the event that you do become distressed due to certain issues or questions arising, the number for a counsellor will be provided to you.

Voluntary: Your participation in this study is voluntary and you do not have to feel obligated to participate in the study. Your participation would, however, be greatly appreciated. If you choose not to participate in this study, you will not be affected in any way. If you agree to participate in the study, you may decide to stop participating at any time without penalties or prejudice.

Confidentiality: All individual information will remain confidential and any information that you provide will not be able to be linked back to you. Pseudonyms will be used to refer to individuals and special schools.

Findings: Research data will be stored for a period of five years after which is will be shredded and all recordings will be incinerated. Research findings will be made available to you at the end of the study should you wish to receive feedback.

Questions: If you have any questions about this study, you may contact me on 082 854 6902 or email me at nicolabuhr@gmail.com. You may also contact my supervisor, Nontobeko Buthelezi, on 033 260 5670. If you have any complaints about any aspect of this study, you may also contact the ethics committee of UKZN on 031 260 4557.

.....

**Statement of consent:** I _____(Full name of participant) hereby confirm that I understand the contents of this document and the nature of the research project. I consent to participating in the project and I understand that I am at liberty to withdraw at any stage of the project if I wish to do so. I also give consent to being voice recorded during the group interview. I understand that these recordings will only be used as part of the data collection process and will not be used to identify individuals or their comments.

Signature of participant: Date:

**Appendix 4: Semi-Structured Interview**

## Semi- Structured Interview

**School:** _____

**Date:** _____

1. What process is followed before a learner with ASD is admitted into the special school?
2. Are there any criteria that you feel should be considered before placing a learner with ASD into a special school?
3. What would you alter about the admission process for learners with ASD?
4. What range of ASD do you currently cater for?
5. Do you feel equipped to cater for the needs of learners with ASD? (Training, support, equipment, facilities, teacher assistants, classroom modifications etc.)
6. What types of intervention strategies are used in the special school to support learners with ASD? (teaching techniques, visual support, social skills development)
7. What provisions does the special school have to cater for the educational needs of learners with ASD e.g. facilities, teacher training, adaptations, teacher assistants etc.
8. What provisions and adaptations still need to be made to ensure that an optimal level of education is provided to learners with ASD?
9. What areas do you feel are not being addressed sufficiently in educating learners with ASD?
10. What types of inclusion experiences are available to the learners with ASD?