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**TEACHERS' EXPERIENCES OF TEACHING LEARNERS DIAGNOSED  
WITH AUTISM**

by

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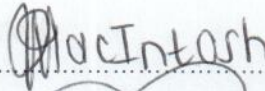
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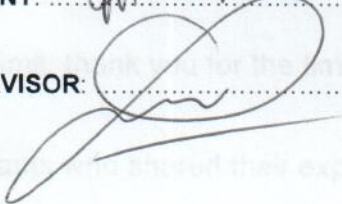
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# Abstract

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The purpose of the study was to explore teachers' experiences of teaching learners diagnosed with autism. In particular, information was obtained regarding the assets that learners with ASD have and how these assets can be utilised within classrooms. Teachers also gave insight about the challenges that they encounter while teaching learners with ASD. Current classroom practices were investigated and information obtained about the type of support that teachers provide to learners with ASD. This was done in an attempt to provide guidelines on how to improve classroom practices within various educational settings to best support learners with ASD. Furthermore, I explored whether learners with ASD can be included within mainstream or remedial schools and what assistance they will need if they can be accommodated within these school environments.

A case study design was utilized. A total of six participants participated in the study. Data was collected by means of a focus group interview as well as one-on-one interviews. Two research sites were used and the information obtained from these sites was used to establish similarities and differences between teachers' experiences in the respective school environments. The findings of the studies indicate that teacher training programmes need to be revisited in order to achieve the ideal of authentic inclusive school environments.

## **Keywords:**

Autism, teacher experiences, inclusive education, authentic inclusion, eco-systemic perspective, teacher training, experiences, learners with autism, PECS, autism specific programmes

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# **1. CHAPTER ONE: ORIENTATION TO THE STUDY, METHODOLOGY AND RESEARCH DESIGN**

## **1.1 Introduction**

In this chapter, the main concepts related to the study will be clarified and a short overview of literature will be presented. In particular this chapter will focus on the research question, purpose and rationale of the study. Furthermore, information will be given regarding the manner in which the research was carried out as well as the ways in which data was generated and analysed. The strengths and limitations of the research design and data collection strategies will be outlined. An explanation is given in an attempt to describe how the researcher attempted to utilise these strengths as well as how the limitations were addressed. Finally, the role of the researcher, ethical considerations and quality criteria applicable to the study will be discussed.

## **1.2 Overview**

Individuals with autism are mainly catered for in special schools. In order to accommodate these learners, modifications are made to the environment and various forms of communication are used. Educational policies have, however, started to encourage the inclusion of children with Autism Spectrum Disorder (ASD) in mainstream schools where special provision is not readily available (Kalyva & Avramidis, 2005). According to Gena (2006) mainstream schools have become an option for children with ASD in recent years, however there seems to be a lack of understanding regarding the needs that arise from the inclusion of these children in mainstream schools. One need of children with ASD is their limited language and social repertoires. Children diagnosed with autism are often isolated and have minimal social interactions with their peers. Thus they need support in the area of social engagement with their peers (Gena, 2006). Although school settings are the ideal environment to implement social skills programmes, it poses challenges to teachers who are not always trained to work with learners with ASD, and they are faced with limited resources and time constraints (Bellini, Peters, Benner & Hopf, 2007).

From the above, it can be inferred that learners diagnosed with autism have special needs that have to be addressed within classrooms. An extensive search on search engines such as Google, Google scholar, Eric, EBSCOhost as well as Yahoo provides one with a vast amount of literature about autism. The focus of this literature is, however, limited to information regarding the disorder as well as early childhood development programmes that can be implemented within preschools and the home environment, to support learners with ASD. There is however very limited literature on the experiences of teachers working with these learners on a daily basis.

### **1.3 Rationale**

As a former assistant within a remedial school, I worked with learners with ASD and noticed that these learners needed varying levels of support within the classroom. Upon embarking in conversations with the teachers working with learners with ASD, it became apparent that many of them have never shared their experiences of teaching learners with ASD, and that most of them had to learn about autism on their own. I therefore decided to explore this further and it is therefore envisaged that this research study will provide valuable information about teachers' experiences of teaching learners with ASD. It is hoped that the information gathered with this study can be used to provide insight on how to improve both classroom practices, as well as identify areas in which teachers need assistance, whether this is in the form of training, classroom assistance or resources.

### **1.4 Research question and purpose**

The guiding research question was: What are teachers' experiences of teaching learners diagnosed with autism?

The purpose of this study was:

- To explore the experiences of teachers within classrooms with regard to teaching learners with ASD.
- To provide insight regarding the assets that learners with ASD have and how these assets can be utilised within classrooms.

- To explore the challenges that teachers encounter while teaching learners with ASD.
- To explore the role of teachers in creating inclusive classrooms<sup>1</sup> to accommodate learners with autism.
- To establish teachers perception of the support services available and needed in inclusive classroom environments for learners with autism.
- To explore current classroom practices with regard to the type of support teachers provide to learners with ASD, as well as to help build theory on how these practices can be improved.
- To investigate whether learners with ASD can be included within mainstream schools and what assistance they will need if they can be accommodated in mainstream schools.

## **1.5 Concept clarification**

Throughout this paper, specific reference will be made to certain terms. The following concepts are therefore defined in order to provide clarity as to what is meant by these main concepts.

- Teacher: “Means any person who teaches, educates or trains other persons or who provides professional educational services, including professional therapy and education psychological services, at any public school, further education and training institution, departmental office or adult basic education centre.” (Employment of Educators Act, 76 of 1998).
- Experiences: Refers to the knowledge and skills one gains by actually doing or living through something (<http://www.merriam-webster.com/thesaurus/experiece>)

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<sup>1</sup> The articulation of the research questions and aims related to the interview questions is based on inclusive education, as it is currently the predominant education policy.



- Autism: “A complex, variable, biologically based pervasive developmental disorder that influences both the development as well as the functioning of the brain.” (Koudstaal, 2005:307). Autism and pervasive developmental disorders are commonly referred to as autistic spectrum disorders (ASD) (Carr, 2006). The term spectrum indicates that although people with autism share certain difficulties, the way in which the disorder affects them will be different. For the purposes of this paper the researcher will use the term autism to refer to ASD, thus acknowledging the broader conceptualisation of autism.
- Learners with ASD: The Diagnostic and Statistical Manual of Mental Disorders -IV-Text Revision (DSM-IV-TR) has specific diagnostic criteria that a person must meet in order to be diagnosed with Autistic Disorder (specific term used within the DSM-IV-TR). For the purpose of this paper, learners with autism will refer to all school-going pupils who have been formally diagnosed with autism.

## **1.6 Research paradigm**

I employed the interpretive paradigm for my study. The primary focus of interpretive methodologies is to understand and account for the meaning of human experiences and actions (Fossey, Harvey, McDermott & Davidson, 2002). In order to gain first-hand accounts of teachers' experiences, I interacted with them in an attempt to gain an understanding of their everyday experiences and interactions. I further tried to gain a deeper understanding of their experiences of teaching learners with ASD by observing the strategies and classroom practices that they use to support learners with ASD. I made use of a phenomenological approach in order to “study the ordinary life world” of teachers. I was thus interested in how the teachers experience their world and what it is like for them (Fossey, et al., 2002).

## **1.7 Qualitative research using a case study design**

In order to address my research question, I chose to conduct qualitative research. By making use of a naturalistic approach I tried to understand phenomena (the teachers experiences) in context-specific settings (their environment), and attempted to produce findings derived from real-world settings. As a researcher I attempted not to manipulate the phenomenon of interest (Golafshani, 2003). Thus the focus was

on the teacher's lived experiences. As a researcher I asked open ended questions in order to provide the teachers with the opportunity to share their true experiences.

## **1.8 Research design**

Baxter and Jack (2008:548) define a case study as: "An approach to research that facilitates the exploration of a phenomenon within its context making use of a variety of data sources." The main reason for selecting cases for my study was "the opportunity to learn" (Stake as cited in De Vos, Strydom, Fouché, & Delpont, 2005, p.220).

I made use of a descriptive case study, in order to describe the interventions, phenomenon and the real-life context in which the teachers' experiences occur (Baxter & Jack, 2008). Within my study, I used multiple cases (two different school settings), this is referred to as a collective case study. Using the above mentioned I was able to analyze information gained within each setting as well as across settings. The focus of my study was thus to understand the similarities and differences experienced by teachers working in different types of school environments (Baxter & Jack, 2008; Fouché, 2005).

Using a case study design also posed various challenges. One challenge for my study was the smaller sample inherent in the design. My research participants were selected on the basis of convenience thus they are not representative of the general population. The aim of the research was, however, not to generalise knowledge but rather to gain an understanding of the experiences of the participants (Lincoln & Guba, 1985).

Another limitation to my design was the fact that case studies report the results for a single individual in a specific situation and therefore it is challenging to generalise the results of one's study to other individuals in different situations. In my study I decided to make use of multiple case studies and to draw inferences between the results obtained from the various cases. This was done in an attempt not to generalise the findings but rather to gain an understanding of the experiences of the participants, and to ensure that multiple voices from different settings informed my results rather than just a single individual (Gravetter & Forzano, 2006).

## **1.9 Data collection**

In order to collect data for my study, teachers were approached to participate in my study.

### ***1.9.1 The research participants***

The research participants (teachers) were selected using purposeful sampling. When using purposeful sampling, the researcher intentionally selects specific individuals and sites in order to learn more about or to understand a central phenomenon. The researcher chose specific sites for the research, knowing that the specific schools cater for learners with ASD. The researcher also selected, as potential participants, teachers known to work with learners with ASD. Thus the participants and sites were selected based on the fact that they could provide rich information (Cresswell, 2007).

A maximal variation sampling strategy was adopted. This strategy is a purposeful sampling strategy that allows one to select participants and sites that differ on some characteristic or trait (Cresswell, 2007). For my study, I selected teachers of different age groups and with different years of experience. This gave me the opportunity to gain the experiences of teachers from different backgrounds and enabled me to compare their experiences and establish whether they have similar or differing experiences of teaching learners with ASD.

Two different sites were used as I wanted to gain the experiences of teachers within a school specialising with autism and compare it with those of teachers within a remedial school. This enabled me to gain insight as to how their experiences overlap and differ, as well as to identify the level of support needed by teachers at the respective sites.

### ***1.9.2 The teachers***

Teachers from two schools participated in the research study. Four teachers from a school specialising in autism participated in the first phase of data collection. Two

teachers from an independent special school<sup>2</sup> participated in the second phase of the data collection.

### **1.9.2.1 Teachers in data collection phase one**

Four teachers participated in the first phase of data collection. All the participants currently teach learners in the foundation phase.

The first research participant (referred to as I1 for the remainder of the report) was a 24-year old teacher. Her home language is Afrikaans and her second language is English. She obtained her B.Ed (Intermediate phase) degree at a university and currently has two years of teaching experience.

Participant two (referred to as I2 for the remainder of the report) is a 43-year old teacher. She started her training by obtaining a secondary teachers diploma. Thereafter she obtained her Advanced Teaching Diploma (ATD) and completed Special Needs Education training at a university. She has many years of teaching experience and has worked at a primary mainstream school, a high school as well as a special school for severely mentally handicapped learners.

The third teacher (referred to as I3 for the remainder of the report) is a 27-year old teacher. Her home language is Afrikaans and her second language is English. She obtained a B.Ed degree and thereafter completed her Honours in Augmentative and Alternative Communication. She currently has four years of teaching experience.

The fourth teacher is 35 years old. Her home language is Afrikaans and English is her second language. She is a qualified teacher as well as an Educational Psychologist. She currently has five years of teaching experience, and she has been working as an Educational Psychologist for three years. For the purpose of this report, the participant will be referred to as I4 for the remainder of this report.

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<sup>2</sup> Although the term special school is used, within practice these schools are often referred to as remedial schools. This specific school caters for learners with special educational needs.

### ***1.9.2.2 Teachers in data collection phase two***

The first teacher at the independent special school that participated in my research study is a 62-year old female. She is a qualified remedial teacher whose home language is English. She has 18 years of teaching experience and has taught in a mainstream, special needs as well as a remedial environment. This participant will be referred to as I5 for the remainder of this report.

The second participant is a 24-year old female teacher. Her training includes a BA degree with majors in Psychology, Art and Education. She then furthered her training and did a postgraduate certificate, specialising in Foundation Phase and Early Childhood Development. Her teaching experience includes working in a mainstream school for one year as well as one year's experience working in a remedial school. This participant will be referred to as I6 for the remainder of this report.

### ***1.9.3 The schools***

The first school, at which the data for my study was collected, is a special school which provides specialised education to learners diagnosed with ASD. The school is situated in Northern Gauteng, and although it caters mostly for learners residing in Gauteng, it does also accommodate learners from Mpumalanga, Free State, KwaZulu-Natal, Limpopo as well as neighbouring countries such as Swaziland, Lesotho and Botswana.

Currently the school caters for roughly 107 learners ranging between the ages of three and 18. These learners have a range of learning difficulties and/or intellectual difficulties.

The school strives to provide a secure environment characterised by understanding and acceptance for each learners diverse needs. The staff works as part of a trans-disciplinary team, tailoring each learners' support and education to the learners ability. The staff at the school receives present and regular training in order to become experts in the field of assisting learners with ASD.

The second school at which data was collected for my study is an independent special school located in Northern Johannesburg. The school caters for learners

with mild to moderate support needs. Their goal is to educate and remediate learners in order to place learners back in mainstream education, if possible.

The school offers small class sizes and has a full range of therapists available on site to provide support to learners in order to help them develop themselves and their abilities. In order to meet each individual learner's needs, the curriculum and pace of learning is adapted for each pupil. Class sizes within this school range from 10 to 12 learners.

## **1.10 Data collection process**

Qualitative research was employed in order to collect data for my study. The data for my study was generated by means of a focus group interview as well as one-on-one interviews with teachers. Within my focus group as well as the one-on-one interviews, open-ended questions were asked in order to provide the participants with the opportunity to best voice their actual experiences (Creswell, 2007). The first phase of my data collection consisted of a focus group interview at a special school for learners with ASD.

### ***1.10.1 Focus group interview***

A focus group interview involves the process of collecting data by means of an interview with a group of people typically consisting of four to six people. The advantage of making use of a focus group interview is that the interaction amongst the participants will yield a lot of information within a limited amount of time (Cresswell, 2007). Four teachers participated in my focus group interview.

A challenge of having a focus group interview is that some participants may take over the discussion thus limiting the time available for others to speak (Cresswell, 2007). Before conducting my focus group interview, I asked the participants to allow turn taking during the discussion. In addition I asked the participants that did not contribute much to the conversation what their views were, in order to ensure that information was elicited from all participants. See Addendum A for a list of open-ended questions used in the focus group interview.

### **1.10.2 Individual interviews**

The benefit of a one-on-one interview is that the participants can provide detailed personal information and as a researcher I had the opportunity to ask specific questions to elicit information that would best help me answer my research question (See interview questions attached as Addendum B). I thus had the opportunity to better control the type of information I received as I could ask questions related to my research question. One-on-one interviews are also ideal when working with participants that like to share their experiences and who can share information comfortably (Creswell, 2007).

One disadvantage of one-on-one interviews is that participants might provide deceptive information as they may provide information based on their idea of what the researcher wants to hear (Cresswell, 2007). To prevent this from happening I asked my participants to be honest and I also took pictures of the resources they use in their classroom, as this allowed me to see whether what they said and what they do in practice correlates. Thus various sources of information were utilised in order to crystallise the data I gained. Crystallisation gives us a deeper and thorough understanding of a topic (Denzin & Lincoln, 2005).

### **1.11 Data analysis**

The aim of analysing my data was to make meaning of it. As a result of personally collecting my data, I had some prior knowledge of the data as well as some initial analytic thoughts. In an attempt to become more familiar with my data, I immersed myself in my data by repeatedly reading the data (Braun & Clark, 2006; De Vos, 2005). I read my data actively, searching for patterns and meaning. After active engagement with the data, I started coding my data. The coding was done by highlighting specific phrases within each data set (see Addendum C). The codes from my individual transcripts were then collated and similar codes were combined into categories. In order to identify overarching themes and sub-themes, a thematic map was done to visually organise my data into themes (see Addendum D) (Braun & Clark, 2006; Henning, van Rensburg & Smit, 2004).

### **1.12 Quality criteria**

In order to ensure that the findings of my inquiry are worth paying attention to or worth taking account of, I made an attempt to ensure that my study is trustworthy

(Lincoln & Guba, 1985). In order to establish the trustworthiness of a study it is important to ensure that the results are credible, dependable, confirmable and transferable.

Credibility means establishing a match between the reality that was constructed by the participants and the reality represented by the researcher (Sinkovics, Penz & Ghauri, 2008). In order to make sure the results are credible I made use of various data sources and then triangulated the data, thus exploring the phenomena from various perspectives (Baxter & Jack, 2008). In addition I also made use of member checking by means of sharing my interpretation of the data with the participants. This allowed the participants the opportunity to add a new perspective to the data as well as to discuss and clarify certain aspects of the data (Baxter & Jack, 2008).

Transferability refers to the extent to which the findings of the study are applicable to other contexts, thus how transferable the results are (Sinkovics, *et al.*, 2008). The study was done with a purposeful sample within a school specialising in autism as well as a special needs school, thus the findings are not representative of the whole population but rather provide insight into the experience of teachers within the specific contexts. A detailed description of the research sites is provided in order for the audience of this thesis to decide if the findings can be applied to similar contexts.

Dependability is concerned with the stability of one's results over time, thus showing that your findings are consistent and that it can be repeated in other studies (Sinkovics, *et al.*, 2008). In order to make a study as dependable as possible, the data analysis process must be as transparent as possible. I have included samples of my data analysis as an addendum, as well as a copy of the questions that were asked during the interviews and focus group interview. By providing these methodological steps I ensure that the study can be repeated within other similar contexts.

Confirmability refers to the degree of neutrality of the findings. The researcher must be able to show that the interpretation they draw from the data is based on the participants' views and that it is not biased and shaped from the researchers'



perspective (Sinkovics, *et al.*, 2008). Direct quotations of participants are included, thereby giving the audience the insurance that the data is based on the participants' views and not on that of the researcher. The data was also discussed with the participants to make sure the correct conclusions were drawn from the interviews and focus groups.

### **1.13 My role as researcher**

Before conducting my interviews, the research topic was discussed with the participants. I discussed the practical aspects of the research with the participants, such as using a tape-recorder and the participants gave consent to the interviews being recorded on a separate slip of the consent letter (Henning, van Rensburg & Smit, 2004). As a researcher I had to be conscious of how my own values and views could possibly influence the way I interpret the data and the way in which I present the findings (Jootun & McGhee, 2009).

Denzin and Lincoln (2005) mentions that in order to be truly reflective, one needs to clarify ones personal thoughts and ideas about the research topic as well as identify possible ways in which biases can influence your research. As a researcher I thus had to be alert to not let my biases and beliefs influence the way in which I collect and interpret my data. The process of reflection was thus used in order to ensure that my personal views and beliefs were separated from the phenomenon under study. Since I have worked within a remedial environment before, and specifically with learners with ASD, I had to be careful not to let my views and experience with learners with ASD influence the way in which I phrased my questions as well as the way in which I interpret the results. I worked with learners with ASD within a remedial school, and as a result believed that depending on the learners' functioning, that it is possible for them to function within a remedial environment. In particular, I had to be very careful not to let my beliefs influence the way in which I address the issue of inclusion of learners with ASD within alternative educational environments.

### **1.14 Ethical considerations**

The principle of informed consent is based on the notion that potential participants have a right to freely take part in research without any form of manipulation or coercion (Glesne, 2006). All my research participants gave written informed consent

(See Addendum E) stating their willingness to participate in the study. I also applied and received permission from the Gauteng Department of Education to conduct my research within the government school specialising in autism (See Addendum F). Thereafter I received formal permission from the school principal to conduct research within the school. Informed consent was also received from the school principle at the independent special school (See Addendum G). Informed consent was obtained from the participating teachers at both schools.

Josselson (2007) states that the informed consent form must provide a statement of the purpose of the study that is as close to the researchers focus as possible. I provided a clear and accurate description of the purpose of my study within my consent forms. The problem with informed consent is however that it compromises anonymity, because research material has no legal privilege and participants can be identified if someone gets hold of the consent forms. In order to avoid my participants from being identified, I made use of code names in transcriptions (See Addendum C). Information pertaining to who will have access to the data and how the data would be stored was included in the consent form. The participants was thus informed that my supervisor has access to all the material, but that no one else would have access to it other than myself and my supervisor. Thus the information provided by them was treated as confidential. I also informed the participants of the focus groups that the principle of anonymity does not apply. I however asked all participants to keep all information shared during the focus group interview confidential as well as not to mention the names of participants to others outside the study.

The notion of confidentiality refers to the researchers' obligation to take reasonable precautions to protect confidential information (Josselson, 2007). I thus did everything possible to disguise and safeguard the research material so that the research participants are not recognised. Due to using a focus group, I gave accurate and clear information regarding the limits of confidentiality. I requested that the participants would refrain from using learners' names when they share information so as to protect the learners from being identified. In addition the

participants were informed, from the start of the study that they had the right to withdraw from the study at any specific time point.

### 1.15 Demarcation of the study

Chapter	Topic
Chapter One	Orientation to the study, as well as research design and methodology
Chapter Two	Literature Review
Chapter Three	Research findings
Chapter Four	Discussion of research findings, conclusion and recommendations

Figure 1: Demarcation of study

### 1.16 Conclusion

In this chapter, background literature to the research topic was presented. In particular this chapter focused firstly on the research question, purpose and rationale for the research. The second focus of this chapter reflected the way in which the research was carried out as well as the ways in which data was generated and analysed. The strengths and limitations of the research design and data collection strategies were outlined, and an indication was given of how the researcher attempted to utilise these strengths and address the limitations. Lastly the role of the researcher was explored and a discussion of the ethical considerations and quality criteria applicable to the study was provided.

## **CHAPTER 2: LITERATURE REVIEW**

### **2.1 Introduction**

Within this chapter, autism will be defined and explained in terms of its characteristic features, age of onset, epidemiology, and impairments to provide a holistic picture of the diversity with which this disorder can present itself. Thereafter, the diagnostic criteria currently used are outlined, and the proposed diagnostic criteria as set out in the DSM-5 are discussed. A description of the essential elements of inclusion and that of effective educational programmes for learners with ASD will then be provided. Lastly an integrated model between inclusive education and best practice for ASD is proposed in order to provide guidelines to achieving “authentic inclusion” within our education system.

### **2.2 Defining autism**

Autism was first described by Leo Kanner, a psychiatrist, in 1943. He coined the term infantile autism during one of his studies with children. The children displayed an “inability to relate themselves in the ordinary way to people and situations from the beginning of life” (Merrell, 2008:347–348). Kanner’s descriptions of autism emphasised the latter statement but also included noted communication deficits, good but atypical cognitive potential and behavioural problems including repetitive actions, obsessiveness and unimaginative play (Wicks-Nelson & Israel, 2009).

Currently, autism and pervasive developmental disorders are commonly referred to as autistic spectrum disorders (Carr, 2006). The term spectrum indicates that although people with autism share certain difficulties, the way in which the disorder affects them will be different. Some individuals with autism can live fairly independent lives, while others can have accompanying learning disabilities that require lifelong specialist support (The National Autistic Society, 2012). For the purposes of this paper the researcher will use the term autism to refer to ASD, thus acknowledging the broader conceptualisation of autism.

Koudstaal (2005:307) defines autism as: “A complex, variable, biologically based pervasive developmental disorder that influences both the development as well as

the functioning of the brain.” The term pervasive used as developmental disorder is used as an umbrella term and it includes a variety of related impairments including childhood disintegrative disorder, Rett syndrome, autism, Asperger syndrome and pervasive developmental disorders not otherwise specified (PDD NOS) (Koudstaal, 2005).

The Diagnostic and Statistical Manual of Mental Disorders -IV-Text Revision (DSM-IV-TR) has specific diagnostic criteria that a person must meet in order to be diagnosed with Autistic Disorder (specific term used within the DSM-IV-TR). The purpose of this manual is thus to provide clear descriptions of the diagnostic categories, in order for clinicians and investigators, to diagnose, communicate about, study and treat people with various disorders (APA, 2000). The following section stipulates the current diagnostic criteria for Autistic Disorder, as well as the draft criteria for the DSM-5.

## **2.3 Diagnostic criteria for Autistic Disorder**

The diagnostic criteria for Autistic Disorder as specified in the DSM-IV-TR are as follows:

*“A. A total of six (or more) items from (1), (2) and (3) with at least two from (1) and one each from (2) and (3):*

*(1) qualitative impairment in social interaction, as manifested by at least two of the following:*  
*(a) marked impairment in the use of multiple non-verbal behaviours such as eye-to-eye gaze, facial expression, body postures, and gestures to regulate social interaction*  
*(b) failure to develop peer relationships appropriate to developmental level*  
*(c) a lack of spontaneous seeking to share enjoyment, interest, or achievements with other people (e.g., by a lack of showing, bringing, or pointing out objects of interest)*  
*(d) lack of social or emotional reciprocity*

*(2) qualitative impairments in communication as manifested by at least one of the following:*  
*(a) delay in, or total lack of, the development of spoken language (not accompanied by an attempt to compensate through alternative modes of communication such as gesture or mime)*  
*(b) in individuals with adequate speech, marked impairment in the ability to initiate or sustain a conversation with others*  
*(c) stereotyped and repetitive use of language or idiosyncratic language*  
*(d) lack of varied, spontaneous make-believe play or social imitative play appropriate to developmental level*

*(3) restricted repetitive and stereotyped patterns of behaviour, interests, and activities, as manifested by at least one of the following:*  
*(a) encompassing preoccupation with one or more stereotyped and restricted patterns of interest that is abnormal either in intensity or focus*  
*(b) apparently inflexible adherence to specific, non-functional routines or rituals*  
*(c) stereotyped and repetitive motor mannerisms (e.g., hand or finger flapping or twisting, or*

*complex whole-body movements)*

*(d) persistent preoccupation with parts of objects*

***B. Delays or abnormal functioning in at least one of the following areas, with onset prior to age three years: (1) social interaction, (2) language as used in social communication, or (3) symbolic or imaginative play.***

***C. The disturbance is not better accounted for by Rett's Disorder or Childhood Disintegrative Disorder.” (APA, 2000:75).***

Table 2.1: Diagnostic criteria for autistic disorder (APA, 2000:75)

### ***2.3.1 New diagnostic criteria***

Although autism could be easily differentiated from other typical development and “non-spectrum” disorders, it was found that distinctions amongst the disorders classified under pervasive developmental disorders in the DSM-IV-TR have been inconsistent over time. In addition distinctions between the disorders varied across sites and it was often associated with language level or intelligence rather than the features of the disorders. It was therefore proposed that the respective disorders can be best represented as a single diagnostic category due to the common set of behaviours they represent. This single diagnostic category would then be adapted to each individual’s clinical presentation by means of including clinical specifiers such as the severity and verbal abilities as well as associated features e.g. known genetic disorders and epilepsy (APA, 2012). A diagnosis-related research planning conference focusing on autism and other pervasive developmental disorders was held in Sacramento California in February 2008. The conference was held by The American Psychological Association (APA) in collaboration with the World Health Organisation (WHO), National Institutes of Health (NIH) and the M.I.N.D Institute at the University of California. The agenda of the conference was divided into a series of nine panels, each one focusing on a question that was raised during the first meeting of the *DSM-5* Autism Work Group (First, 2008).

The following questions were addressed by each of the nine respective panels:

- What are the core symptom domains in autism?
- How are fixated interests and stereotypes related to each other, to autism, and to obsessions and compulsions?
- How does the presentation of autism change across the lifespan?

- How does developmental regression (and particularly Childhood Disintegrative Disorder) fit into the autism spectrum?
- Asperger's Disorder – is it Autism?
- Is Autism a Life-Long Diagnosis?
- How does co-morbidity affect symptoms of Autism?
- What role should neurobiology play in the DSM-5 diagnostic criteria for autism?
- What are the international, cultural, and gender considerations in the diagnosis of Autistic Spectrum Disorders? (First, 2008).

After elaborative research was done, a new category was proposed by the *DSM-5* Autism Work Group. Autism Spectrum Disorder was suggested as the new category. This category would ingrate various diagnoses that were previously separate diagnoses, including: Autistic Disorder, Childhood Disintegrative Disorder and Pervasive Developmental Disorder Not Otherwise Specified (APA, 2012).

The proposed changes emphasises that the symptoms of the latter disorders represent a continuum from mild to severe, rather than a clear cut yes or no diagnosis to a specific disorder. Therefore a range of severity is suggested as well as an overall developmental status of the individual in terms of social skills, communication, as well as relevant motor and cognitive behaviours (APA, 2012). The new category Autism Spectrum Disorder is thus seen as a better reflection of the current knowledge with regard to pathology and clinical presentation in comparison to the way it was previously presented in the DSM-IV-TR (APA, 2012).

### ***2.3.2 Draft criteria for Autism Spectrum Disorder in the DSM-5***

The draft criterion for Autism Spectrum Disorder in the new DSM-5 which is bound to be published in May 2013 is as follows:



**“Individuals must meet criteria A, B, C and D:**

**A. Persistent deficits in social communication and social interaction across contexts, not accounted for by general developmental delays, and manifest by all three of the following:**

**1. Deficits in social-emotional reciprocity; ranging from abnormal social approach and failure of normal back and forth conversation through reduced sharing of interests, emotions, and affect and response to total lack of initiation of social interaction.**

**2. Deficits in non-verbal communicative behaviours used for social interaction; ranging from poorly integrated verbal and non-verbal communication, through abnormalities in eye contact and body-language, or deficits in understanding and use of non-verbal communication, to lack of facial expression or gestures.**

**3. Deficits in developing and maintaining relationships, appropriate to developmental level (beyond those with caregivers); ranging from difficulties adjusting behaviour to suit different social contexts through difficulties in sharing imaginative play and in making friends to an apparent absence of interest in people.**

**B. Restricted, repetitive patterns of behaviour, interests, or activities as manifested by at least two of the following:**

**1. Stereotyped or repetitive speech, motor movements, or use of objects; (such as simple motor stereotypes, echolalia, repetitive use of objects, or idiosyncratic phrases).**

**2. Excessive adherence to routines, ritualised patterns of verbal or nonverbal behaviour, or excessive resistance to change; (such as motoric rituals, insistence on same route or food, repetitive questioning or extreme distress at small changes).**

**3. Highly restricted, fixated interests that is abnormal in intensity or focus; (such as strong attachment to or preoccupation with unusual objects, excessively circumscribed or perseverative interests).**

**4. Hyper- or hypo-reactivity to sensory input or unusual interest in sensory aspects of environment; (such as apparent indifference to pain/heat/cold, adverse response to specific sounds or textures, excessive smelling or touching of objects, fascination with lights or spinning objects).**

**C. Symptoms must be present in early childhood (but may not become fully manifest until social demands exceed limited capacities).**

**D. Symptoms together limit and impair everyday functioning.”**

Table 2.2: Draft criteria for Autism Spectrum Disorder in the DSM-5 (APA, 2012).

It is envisaged that the draft *DSM-5* criteria will provide a more useful dimensional assessment to improve the sensitivity and specificity of the criteria. The proposed changes will enable clinicians to more accurately diagnose people with relevant symptoms and behaviours by recognising the differences from person to person, rather than providing general labels that tend not to be consistently applied across different clinics and centres. These proposed criteria were used in field trials which mean it was tested in real-life clinical settings (APA, 2012).

## **2.4 Epidemiology**

Of these PSD subtypes autism is the most common with a prevalence rate of 10 per 10 000 children (Carr, 2006). Although this prevalence rate is not as current as one would like it to be, the prevalence of autism is reported to have increased in recent years. It is however difficult to determine the reason for this increase and it can most likely be ascribed to the fact that there has been an improvement in the identification



of the disorder rather than an increase in its occurrence. In terms of gender, boys are affected more than girls with an average male: female ratio of 3.8:1 (Karande, 2006).

## **2.5 Onset of autism**

Three patterns of onset have been reported in autism. In the first pattern the symptoms seem to be present from birth. This group is considered to be the “congenital” group and their parents typically report behaviours that they considered to be atypical throughout the first year of life. These symptoms, however, do not differentiate children who would later be diagnosed with autism from those who will be diagnosed with other developmental problems. These early symptoms are more associated with developmental and neurological abnormalities than with specific deficits that are associated with autism. About 33 – 65% of children are reported to show this pattern of onset (Rogers, 2004).

The second pattern is characterised by the achievement of early milestones which is then followed by a developmental plateau. Parents often report that their children’s social and communicative development slowly comes to a halt. For example, babbling was present but then there is no continuation in terms of developing into speech. It is important to note that these children are not reported to have lost any skills, but rather they have failed to develop a set of social or communicative skills that differentiate autism from other developmental problems that occur within the first and second years of life (Rogers, 2004).

The third and final pattern of onset is characterised by a clear developmental loss of skills that was previously acquired. This is a well-documented occurrence. Parents often report that this regression occurs after a period of typical development. The loss of language is the most frequently reported aspect of regression that is reported by parents. The loss of speech generally occurs in children who have a very limited verbal ability. There is a very slim chance of recovery after the regression have occurred (Rogers, 2004). In relation to these patterns of onset it is evident that children with ASD experience various deficits.

## **2.6 Triad of impairments**

Children with ASD has a triad of deficits, these deficits are often referred to as Wing's triad. This triad is named after Lorna Wing (Carr, 2006, Wicks-Nelson, 2009). Children with ASD often display rigid and repetitive behaviour and struggle with both social skills and language development. Typical repetitive and ritualistic behaviour displayed by children with ASD is the flapping of wrists, touching walls or doorknobs, becoming upset about being interrupted and carrying out behaviours in a certain order. Children with ASD are also prone to preoccupation and being overly focused in their interest (Folstein & Rosen – Sheidley, 2001).

### ***2.6.1 Impairment in social interaction***

Learners with ASD display social isolation and they struggle to relate to others (Kerig & Wenar, 2006). Learners with ASD struggle to comprehend both verbal and non-verbal communication within social conversation. They also struggle to interpret the emotional states of others and have trouble forming and maintaining friendships. Although these are general characteristics of learners with ASD, they will be displayed differently, depending on where the learner is on the autism spectrum. Some learners with ASD will struggle to share items within a social setting, whereas others will constantly be involved in conversations about a topic they prefer. Other learners may seldom initiate social interaction (Hart & Whalon, 2011).

The social impairment of children with ASD falls into one of three types, namely: aloof, passive and odd (Wing & Attwood, 1987; Wicks-Nelson, 2009). Children falling into the aloof type appear to be isolated in their own bubble. They come across as withdrawn and fail to respond to the social approach of others (Kerig & Wenar, 2006). In addition these children make limited eye contact and might appear to evade interactions with others altogether (Hart & Whalon, 2011). Aloof children are also prone to use people in a mechanical manner in order to meet their own needs. They would, for example pull or push a person to a preferred environment or help themselves to someone else's lunch box (Landsberg, Krüger & Nel, 2005).

Children classified as the passive type accept social contact in a submissive and indifferent manner. Although they might interact with others in a range of activities

(not spontaneously, they do so as a manner of daily routine without showing signs of enjoyment (Kerig & Wenar, 2006; Landsberg, *et al.* 2005).

Children falling into the odd category have difficulties with the subtleties of social interaction. These learners struggle to understand how others think and feel. This is evident in their inability to predict the behaviour and intentions of others. It is also common for these children to ask inappropriate questions and to pay little attention to the response of others (Kerig & Wenar, 2006; Landsberg, *et al.* 2005; Wicks-Nelson, 2009).

### ***2.6.2 Restricted and stereotyped interests and behaviour***

Children with ASD display restricted imaginative and inflexible thinking skills. This is particularly evident in their need for sameness both in their own behaviour and environment. Due to their need for routine, children with ASD resist change and find it difficult to anticipate future events. Thus planning and organisation is often challenging to them. Children with ASD tend to focus on the immediate word and thus depend on routine and predictability (Landsberg, *et al.* 2005; Wicks-Nelson, 2009).

Children with ASD prefer to play on their own and are often found to have one or more stereotyped and restricted pattern of interest. Examples of stereotyped repetitive motor behaviour include hand or finger flapping, rocking, walking on the toes and whirling, to name a few. These children might also show a preoccupation with unusual objects like elastic bands, sticks, etc., and when they play, their toys will be arranged in exact lines or grouped according to colour, shape and size (Landsberg, *et al.* 2005; Wicks-Nelson, 2009, Merrell, 2008).

### ***2.6.3 Impairment in communication***

While some children with ASD have difficulty to acquire language and reading comprehension, others may have trouble developing the decoding skills that is necessary to master the mechanics of reading. Others who read often might struggle to interpret text (Whalon & Hart, 2011). Learners with ASD who is classified as high functioning, often seem to have average or advanced language skills. They however struggle to understand the social aspects involved in language. Even

learners with good verbal skills, have trouble to involve others in conversation. Thus these children's ability to understand and use language within a social situation can be contradictory when compared to other areas of their language development, for example their pronunciation and subject matter knowledge (Hart & Whalon, 2011).

The language development of learners with ASD is characterised by pragmatic abnormalities such as echolalia and pronominal reversal. (Carr, 2006; Kerig & Wenar, 2006; Wicks-Nelson, 2009). When a child repeats the exact words that someone else has uttered to them in a manner consistent to the intonation the speaker used, it is referred to as echolalia. In the latter instance, the child shows no effort to comprehend what was said to them. Children experiencing these types of difficulties often benefit from being introduced to augmentative and alternative communication systems. Pronominal reversal is more prominent in learners with autism than any other disorder. Pronominal reversal refers to when the pronoun "you" is used instead of "I" or "me" (Carr, 2006, Landsberg, *et al.* 2005; Wicks-Nelson, 2009).

In addition to the mentioned difficulties in communication, the speech of children with ASD is very literal and often used in an extremely formal way. Another common difficulty seen in the speech of children with ASD, is understanding what others are communicating to them by changing the rhythm and intonation of their speech. This makes it difficult for them to comprehend sarcasm and humour (Kerig & Wenar, 2006).

#### ***2.6.4 Triad becoming two domains***

Within the DSM-5 the current triad of deficits has been reduced to two domains. This was done based on the findings of literature reviews, expert consultations and workgroup discussions. It was found that deficits in communication and social behaviours are considered to be inseparable, and it is often seen as a single set of symptoms, influenced by specific contextual and environmental factors. Language delays are also not unique or universal in ASD, and are considered more of a factor influencing the clinical symptoms of ASD. The joining of the social and communication domains will address the limitation of the DSM-IV-TR, in which

multiple criteria assessed the same symptom (APA, 2012; Wing, Gould & Gillberg, 2011). These draft domains are outlined in the draft criteria of the DSM-5 and includes impaired social interaction and communication (conjoined into one category) and restricted behaviour (Wing, Gould & Gillberg, 2011).

The main criticism with regard to the reduced categories is that abnormalities in response to sensory input have been ignored. The counterargument, however, is that odd responses to sensory input are not confined to autism. Billstedt, Gillberg and Gillberg (2007), however, found that problems in reacting to sensory input is the most impairing symptom present from early childhood and that 95% of people still have these problems up until the age of 30. Thus as a result of these findings, it has been suggested that a note must be included in the DSM-5 stating that if sensory impairments are present, attention must be given to the possibility that it is manifesting as part of ASD (Billstedt, *et al.*, 2011).

## **2.7 Associated challenges**

In addition to social, behavioural and communication impairments, learners with ASD may possibly have a variety of associated features, in particular within the following domains:

- Interpersonal adjustment: Learners have an inability to empathise with others and struggles to form loving relationships with others.
- Behaviour: Learners display a resistance to change and display stereotyped behaviour patterns, routines and rituals.
- Affect: Emotions are expressed inappropriately and occasionally, intense negative emotional responses are seen when change occur. Fears and phobias are also common amongst younger children.
- Cognition: Learners with ASD often have an intelligence quotient below 70. Their visual spatial reasoning is often better developed than their verbal reasoning and social problem solving presents as a challenge.

- Physical condition: A minority of learners show self-harm behaviour. This behaviour can include biting or head-banging to name a few. A third of learners are prone to developing epilepsy in late adolescence (Carr, 2006).

Although children with ASD experience the latter mentioned difficulties, there has been an increase in the number of students with ASD who are being included in general education settings. These difficulties, however, do present challenges when it comes to the successful inclusion of these learners in general education classrooms (Hart & Whalon, 2011).

## **2.8 Inclusive education for learners with ASD**

There has been a large increase in the number of learners with ASD being educated in inclusive settings (Hart & Whalon, 2011). One of the main challenges currently experienced is how to provide services to learners with ASD that are not just inclusive but also effective, developmentally appropriate and acceptable to consumers such as school personnel and family members. This challenge is worsened by the fact that the current literature on autism is ambiguous especially in terms of Internet sites that provide false information and by practitioners who believe that there is only one way to treat all learners diagnosed with ASD (Schwartz, Sandail, McBride & Boulware, 2004).

Jordan (2008) argues that education could in a sense be seen as an effective “treatment” for learners with ASD, as these individuals often have to learn things that are intuitively grasped by learners without autism. Education is a way of teaching learners the values, understanding, knowledge and skills needed in order to participate fully within their community. Jordan (2008) further states that the bases of most inclusion programmes, are not inclusion, but rather forms of integration, as the content of the National Curriculum in mainstream schools are not adjusted to accommodate learners with ASD who’s developmental and learning patterns differ from children without ASD. Lynch and Irvine (2009) support this statement and reiterate the notion that inclusion is not simply an issue of placement. It requires an individualised needs-based approach. Without a needs-based approach, inclusion will remain nothing more than a label and students will continue to experience exclusion when they are placed in a mainstream or remedial classroom (Lynch &

Irvine, 2009). Lipsky and Gartner (1997) examined successful inclusive practices, after an analysis of approximately 1 000 school districts and they identified seven elements that were common amongst effective inclusive education environments. Although these factors were identified within the United States, there is evidence that the same factors could be relevant internationally (Lynch & Irvine, 2009). These seven factors will now be discussed as guidelines for an effective educational system.

### ***2.8.1 An effective inclusive educational system***

The seven essential elements of effective inclusive education environments as outlined by Lipsky and Gartner (1997):

Element	Description
Visionary leadership	Must personify the population's ideal and guide, not force, the movement towards its goal.
Collaboration	Provide teachers with the opportunity to collaborate with a multidisciplinary team and ensure that children receive services (e.g. curricular adaptations) that are tailored to meet their unique educational needs.
Support for staff and students	Active efforts for staff development are necessary. Students may need the support of teaching assistants and necessary assistive devices (e.g. communication boards).
Effective parental involvement	Parental involvement benefit students and creates active participation of parents in the school community.
Refocused use of assessment	The method of assessment must be evaluated and adapted to individual needs.
Appropriate levels of funding	Students must receive the necessary levels of funding to ensure they are effectively supported and their needs are met.
Curricular adaptation and effective instructional practices	Look at educational strategies, for example peer support, cooperative learning, etc., to accommodate the unique needs of each learner and maximise their ability to be an equal participant in the inclusive classroom.

Table 2.3: Seven essential elements of effective inclusive education environments

These elements will have to be adapted as children with ASD present with unique and sometimes very complex challenges. However, challenging as it may be, it is still the responsibility of educators to make every effort to provide educational services to these learners whether within a general or remedial education setting (Vakil, Welton, O'Connor & Kline, 2008).

According to Hart and Whalon (2011) the success of learners with ASD within an inclusive environment is greatly dependent on the teaching techniques employed by teachers. As mentioned previously the Internet provides ample information and advice on how to help learners with ASD. Various evidence-based instructional strategies, for example Picture Exchange Communication System (PECS), Applied Behaviour Analysis (ABA), etc., are available within research literature. Although all these resources are available it is still the task of the parents and school personnel to work together to develop a programme to meet the specific needs of each child. This is due to the various skill levels in the different domains previously explained.

Various attempts have been made to identify the most successful educational interventions for learners with ASD. Similarly to Lipsky and Gartner (1997), Dawson and Osterling (as cited in Lynch & Irvine, 2009, p. 854), examined the most widely published and cited educational intervention programmes and identified six elements of effective educational programmes for learners with ASD. These elements are summarised in the table below.

Element	Description
<b>Specialised curriculum content</b>	All programmes include curricula that targets attention, imitation, language comprehension and use, play skills and social skills.
<b>Highly supportive teaching environments and detailed generalisation strategies</b>	Programmes focused on teaching core skills that are typically impaired in children with ASD in a structured and systematic manner.
<b>Predictability and routine</b>	Teaching sessions present information in structured and predictable ways due to the



	inflexibility and a desire for adherence to routine characteristic of learners with ASD.
<b>Functional approach to challenging behaviours</b>	Children with ASD are at an increased risk to develop challenging behaviours. Treatment involves determining the communicative functions served by the behaviours and replacing them with behaviours that enable the child to communicate his or her needs more effectively and appropriately.
<b>Transition support from the previous school environment</b>	Support includes teaching basic Grade 1 readiness skills, implementing a graduated process of transition and collaboration between all parties involved in the learner's life.
<b>Family involvement</b>	Parents are regarded as the expert of their children's needs, and effective intervention is dependent upon their support, participation in parent workshops, and the provision of parent groups for emotional support.

Table 2.4: Elements of effective educational programmes for children with ASD (Dawson & Osterling, as cited in Lynch and Irvine, 2009, p.854).

Looking at the above-mentioned elements, it is evident that an effective inclusive education system for learners with ASD needs to be flexible. One cannot rely on a pre-determined curriculum and teaching methodologies, however, these should still be used as guidelines.

The elements as identified by Dawson and Osterling (as cited in Lynch & Irvine, 2009, p.850) have become synonymous with best practice intervention for learners with ASD. It is thus recommended that these elements must form the basic foundation upon which all intervention and education for learners with ASD should be based.

In order to manage and maintain such a system, one will, however need properly trained teachers and professionals. This does, however not imply that all teachers

and professionals must be experts on ASD, but rather that they should have knowledge about the diversity that exists amongst learners and the way in which we learn and understand the world. For example, one would need some understanding of ASD to understand the behaviour of learners with ASD. Learners with ASD interprets language very literally and some teachers interpret this as an attempt to be funny, however, if you understand the behaviour of learners with ASD, one would note it as a signal of confusion and the inability to understand the context in which the language was used (Jordan, 2008). Teachers must thus be aware of the various behaviour models that are available and have a thorough understanding of the principles of applied behaviour analysis and the different practices that are recommended in early childhood special education (Schwartz, *et al.*, 2004).

Loiacono and Valenti (2010), however, report that most teachers who graduate from university teaching programmes, have minimum training in evidence-based practices for children diagnosed with autism. Taking this point into consideration, it is difficult to foresee how learners with ASD can be accommodated within mainstream or remedial classes, if general educators lack the appropriate training to work with learners with ASD.

In addition to adequate training, teachers must also develop the capacity to do things differently. Learners with ASD do not intuitively understand their teachers, and in turn, the teachers struggle to understand the learners with ASD. Teachers will have to adapt the way in which they interact with students with ASD. They will have to elaborate more during their interactions and try to understand the learners better. It is through these interactions with learners with ASD, that teachers will develop skills and knowledge that can enrich their teaching for all children (Jordan, 2008). It is thus important for all educators to know which teaching methodologies can be utilised in order to meet the educational needs of learners with ASD, in order to maximise their academic, social and behavioural success. For example, an accommodation for a learner who has difficulty writing down answers could be given the opportunity to orally provide answers to questions (Loiacono & Valenti, 2010; Moores-Abdool, 2010). It is alarming to note that most teachers convey that they do not have enough

training to support learners with ASD in general education classrooms (Moores-Abdool, 2010; Loiacono & Valenti, 2010).

Teachers must also realise that to treat learners with ASD equally, they need to treat them differently, not the same as other learners without ASD (Jordan, 2008). Teachers need to identify strategies to provide effective instruction to learners with ASD, but most importantly their strategies need to be evaluated to ensure that the learner is making progress. Possible changes in teaching strategies may include changing the intensity of instruction or using a different reinforcement system (Strain, Schwartz & Barton, 2011). Thus the classroom teachers must have a thorough knowledge of effective practices. Not only must they know the continuum of instructional practices, they must also know how to match appropriate practices to the learner with ASD. From the above mentioned it is clear that teachers must receive adequate support to maintain and implement a programme in order to effectively support a learner with ASD (Schwartz, *et al.*, 2004).

Although a considerable amount of progress has been made with regard to research determining the possibility of including learners with ASD in inclusive classroom environments, it is not significantly evident that they are being included within these environments (Strain, *et al.*, 2011). Strain *et al.* (2011) mentions that this could be due to commonly held myths about the inclusion of learners with ASD. These myths include: the tutorial instruction myth, the overstimulation myth and the behaviour control limitation myth.

The tutorial instruction myth states that learners with ASD can only learn through one-on-one instruction. The overstimulation myth is based on the assumption that the problem behaviour exhibited by learners with ASD in inclusive settings, is due to a direct result of the “more stimulating” nature of these settings. Lastly the behaviour control limitation myth proposes that problem behaviours can only be treated within restrictive settings (Strain, *et al.*, 2011). If one were to take these myths for face value, could one not say the same for learners with Attention Deficit Hyperactivity Disorder or any other learning disorder for that matter?

Lynch and Irvine (2009) suggests an integrated model, with the hope of providing all learners, including those with ASD, with the necessary level of support to ensure an effective educational environment. This model integrates best practice for ASD and inclusive education, as there are common essential elements that these practices share. The following common elements are evident in both models:

- Instructional practices: Both models highlight the importance of effective instructional practices. This includes the curricula to be taught, ways in which it can be adapted to suit the learners' individual needs and assessment strategies that allows for the learner's progress to be measured against themselves, rather than being compared to a group.
- Student and staff support: Both models emphasise the importance of providing support to learners and staff. For learners, support may involve providing routine and structure, and help to overcome challenging behaviours. Staff can be supported by means of access to resources and skill development workshops.
- Multidisciplinary collaboration: This includes cooperation between all parties such as teachers, teaching assistants, parents, psychologist, occupational therapist, speech and language therapists and parents.
- Family involvement: Parents should be involved in learners' academic programmes as to provide learners with consistency across all environments. Parents should be provided with information on best practices for learners.

It is evident that the two models overlap in terms of the essential elements they promote towards achieving inclusive classrooms. By integrating these two models, one can achieve what Ferguson (1995) calls "authentic inclusion". This construct is defined as:

*"A unified system of public education that incorporates all children and youths as active, fully participating members of the school community; that views diversity as the norm; and that ensures a high-quality education for each*

*student by providing meaningful curriculum, effective teaching, and necessary support for each student (Ferguson, 1995:286)."*

If we truly strive to include learners with ASD within remedial or mainstream school environments, it is inevitable that we need to embrace the tenants of "authentic inclusion". Thus the focus should be on providing supportive, individualised, needs-based education to all learners (Lynch & Irvine, 2009).

## **2.9 Conceptual framework**

Bronfenbrenner devised a model called the eco-systemic perspective which attempts to understand how an individual's development is shaped by their social contexts. This perspective integrates the ecological and systemic theory. The ecological theory is based on the interdependence between different organisms and their physical environments. This interdependent relationship needs to be viewed holistically. This relates to the systems theory in which the relationships between human beings and the interactions between groups of people and their social contexts are emphasised. According to this theory, an individual's development happens within four nested systems known as the microsystem, mesosystem, exosystem and macrosystem (Donald, Lazarus & Lolwana, 2006).

The microsystem consists of the direct interaction between an individual and the people within their immediate surroundings, such as school, home and work. The focus of my study is specifically situated within the microsystem, and will emphasise the influence that other systems have on the individual teachers' working experience (Donald *et al.*, 2006). By utilising this framework, I could explore the impact that the other systems have on teachers, and how it impacts their practice.

The interaction between the systems, known as the mesosystem, could be explored, in order to gain a perspective of teachers' interactions with parents, education departments, other professionals, etc. The exosystem explores how an individual is impacted indirectly by other people. In my study I could, for example, look at the training teachers received as well as the in-service training that their schools provide. I could also explore the programmes that are implemented in their schools as chosen by the school management. These all influence teachers within practice,

and contribute to their development as professionals. Finally, the macrosystem focus on how societal norms, cultural traditions and national legislation influence a teacher. Within my study attention was given to the inclusive education policy and the impact it has on teachers within the classroom (Graber, Woods & O’Conner, 2012).

Thus the eco-systemic framework enabled me to explore how the various systems influence teachers’ experiences of teaching learners with ASD. It clearly outlines the different systems as well as the influence it has on individual teachers (Graber, *et al.*, 2012).

## **2.10 Conclusion**

Within this chapter, autism was defined and explained in terms of its characteristic features, age of onset, epidemiology and impairments to provide a holistic picture of the diversity with which this disorder can present itself. Thereafter, attention was given to the diagnostic criteria currently used as well as the reasoning behind the proposed changes to be made in the new DSM-5. An outline of the essential elements of inclusion and that of effective educational programmes for children with ASD was provided. Lastly an integrated model between inclusive education and best practice for ASD was proposed in order to provide guidelines to achieving “authentic inclusion” within our education system.

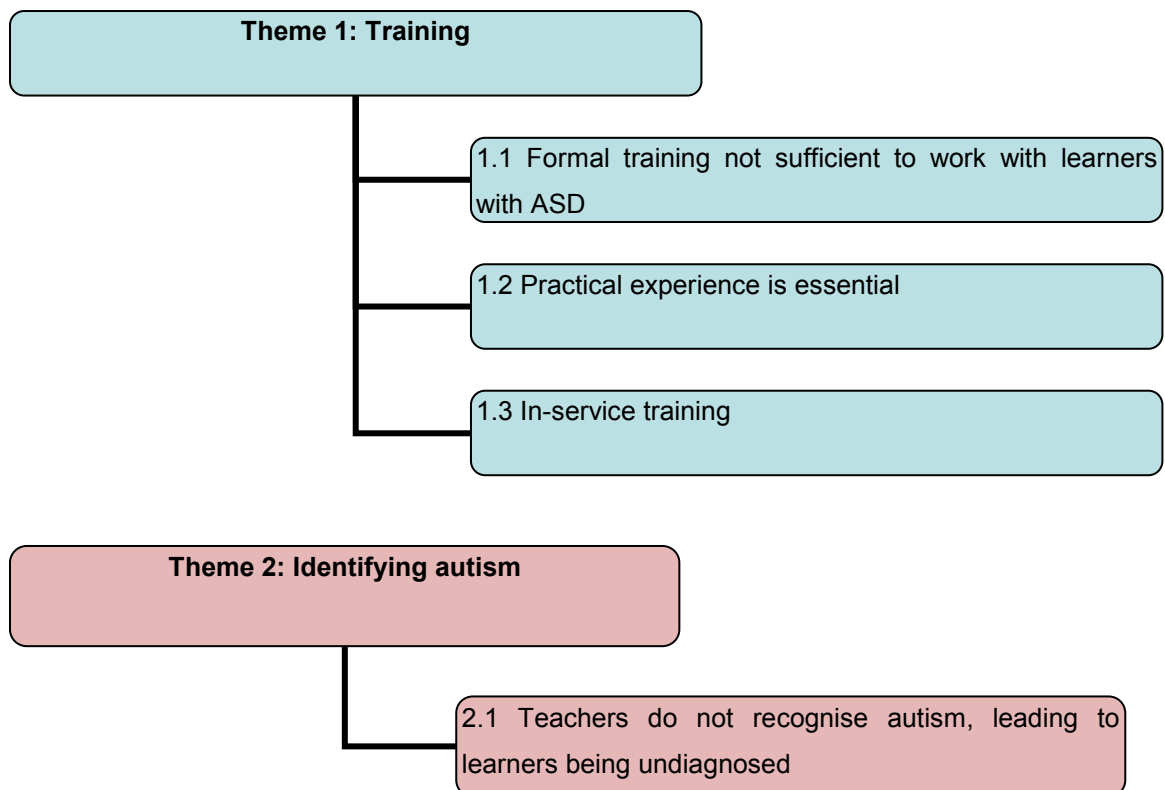
# CHAPTER 3: RESEARCH RESULTS AND DISCUSSION OF FINDINGS

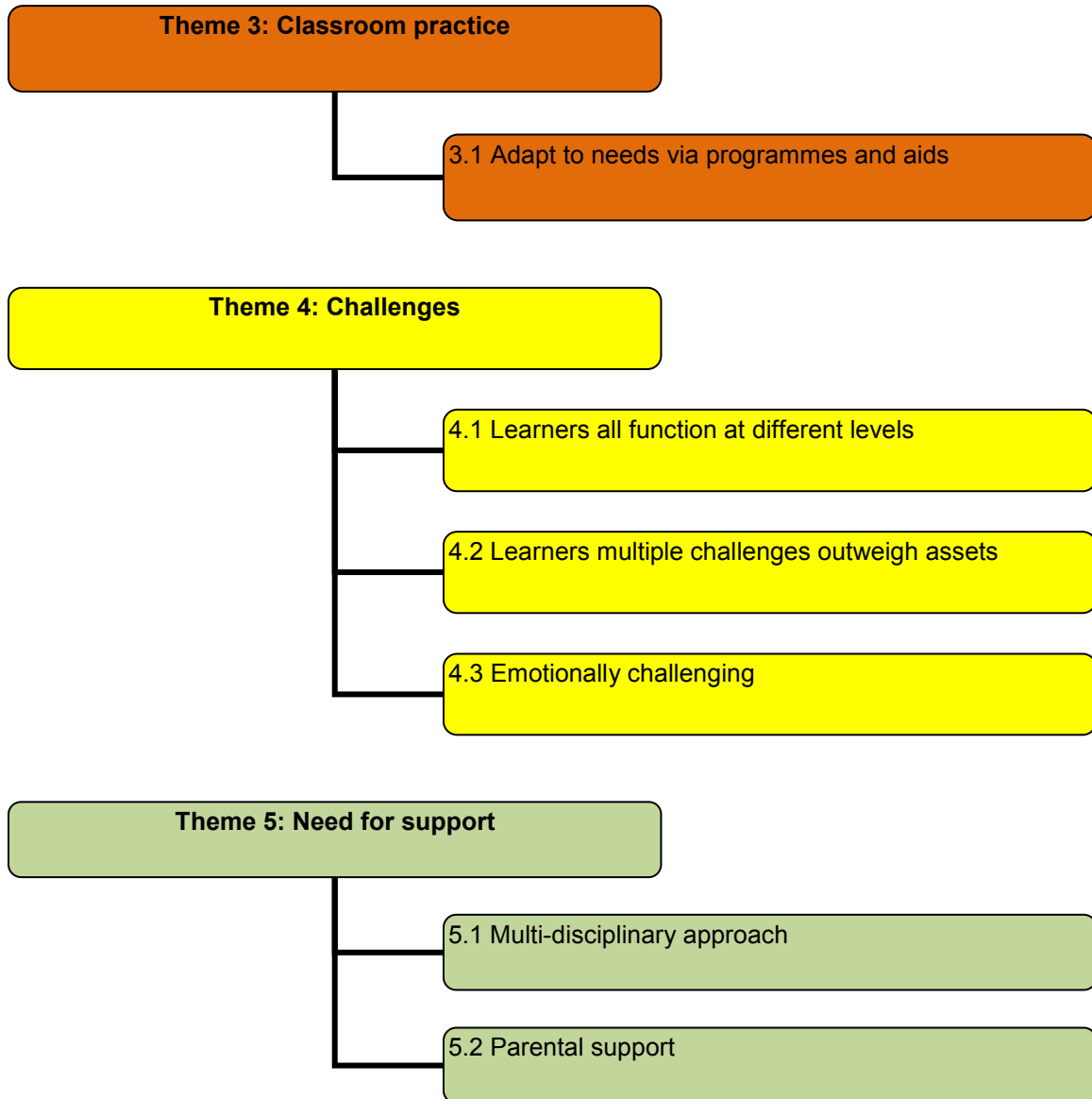
## 3.1 Introduction

Within this chapter, the results and findings of the current study are provided. The themes that emerged will be supported by direct quotes made by the research participants during the focus group and one-on-one interviews. All the findings of the study will be discussed in relation to current literature.

## 3.2 Findings from the data

Within this section, the main themes that emerged from the thematic content analysis of the interview transcripts will be discussed. The themes that emerged from the data are outlined in the following figure:







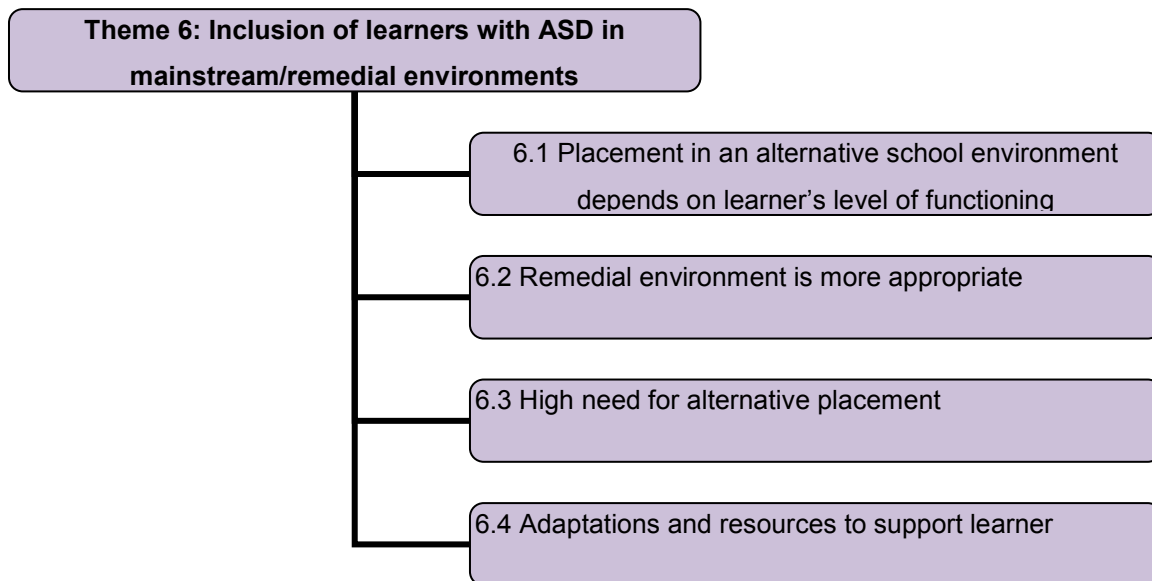


FIGURE 3.1: Themes and sub-themes

### 3.3 Theme 1: Training

Training can be defined as the process of gaining knowledge and developing mastery of a specific skill, until one is able to execute the skill efficiently (Pate, 2013).

The first theme of my data, relates to the training that teachers receive and the relevance thereof in practice. Three sub-themes emerged, as indicated in Figure 3.1. These sub-themes will now be discussed.

#### ***3.3.1. Formal training does not sufficiently prepare teachers to work with learners with autism.***

Teaching learner's with special needs requires special training. Although all of the participants in my study received formal training as teachers, and the majority furthered their studies, they were all of the opinion that the training they received did not prepare them to work with learners with ASD. One participant stated that nothing she learned in four years prepared her for practice: *"There is nothing that I've learned in four years that I've done here. Not one thing."* (I3, Focus group, L129 – 130). This teacher further mentioned that within her formal training, only one page of information was related to autism: *"University A<sup>3</sup> has got only one page on autism"*

<sup>3</sup> Name changed to protect the identity of the institution.

(I3, Focus group, L28). Another teacher was in agreement that the formal training she received was limited: *“It’s just saying there is something like autism.”* (I1, Focus group, L35). One of the participants mentioned that due to insufficient training, most teachers do not know what to do when they have learners with ASD in their classroom: *“Most teachers don’t know what to do. So it’s a lack of education.”* (I4, Focus group, L277 – 478). Taking into account the prevalence rate of learners with ASD, it is concerning to note the amount of exposure teachers get related to ASD during their formal training.

It seems evident that teachers who work with learners with ASD, are aware of the need to receive adequate training about ASD. To address the void in current teacher training, one participant was of the opinion that all teachers should have some remedial background: *“And I think every teacher should be, should have some sort of remedial background.”* (I6, L186 – 187). The same participant further mentioned that teacher training should include an overview of autism: *“And give some kind of an overview, what these children are like, because for me, that was a big thing.”* (I6, L151 – 152). Other participants felt strongly about the inclusion of more information about autism in formal training: *“I would say, it’s a module in itself.”* (I4, Focus group, L452). *“My suggestion is this: the University needs to, in their basic education training, they need to add autism as not just as a special education programme.”* (I3, Focus group, L449 – 451).

The teachers thus felt that their training did not adequately inform them about autism or how to work with learners with ASD. In terms of further training courses specifically related to autism, the participants mentioned that there is only two courses available, but that it is by no means enough to adequately prepare one to work with learners with ASD: *“The only thing is, like we said, the VERA course that’s presented at our school, and at I think Quest and at VERA school. So it’s just a two weeks hands-on training on autism, but it’s by no means enough to be able to just go out there and start teaching children with autism.”*(I4, Focus group, L304 – 307).

All the participants were in agreement that practical training is an essential component of training, which relates to the next sub-theme.

### ***3.3.2 Practical experience is essential***

All the participants mentioned that practical experience is essential to gain information on autism and how to work with learners with ASD: *“The truth is, you only learn how to work with children with autism, when you work with children with autism, it is as simple as that.”* (I4, Focus group, L308 – 310). *“Only once I was in a special needs school and I came into contact with those types of children, did you actually suddenly remember what you’ve learned.”* (I6, L18 – 23). *“We learning a lot of things from the children in fact.”* (I2, Focus group, L126). One of the participants felt that getting practical experience is more important than doing an honours degree: *“I think practical experience is worth more than having something to your name.”* (I6, L7 – 8).

It is evident from these statements, that practical experience is valuable when working with learners with ASD. The majority of participants further mentioned that they have gained a lot of knowledge about autism during their in-service training.

### ***3.3.3 In-service training***

Lazarová and Prokopová (2004) state that in-service teacher training could be understood as professional development, or as part thereof. It is linked to the personal and professional growth of a teacher. In-service training in essence refers to the provision of well-thought out programmes for practicing teachers, aimed in providing them with skills and knowledge to support their development.

All participants reported on the in-service training they received in order to assist them in working with learners with ASD: *“Ja, the in-house training is Justine<sup>4</sup> was the principal here, she gave us videos and things about autism. Just a little bit, also like an overview of what type of kids we can expect in the classrooms, uhm, then we did TEACH training, it's our system, the system for autistic children. And then we had the PECS training, MACATHON training, we got tiny hands training.”* (I3, Focus group, L47 – 51). *“You know you have in service training, you go on these courses and you learn as lecturers, so you learn, you know.”* (I5, L33 – 34). The above refer to training by the principal, thus showing that teachers need leadership and guidance

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<sup>4</sup> Pseudonym used to protect individual's identity

from management, to expose staff members to different programmes and courses. The essence of in-service training is continued professional development. This training should thus build on the knowledge that was established during one's formal training, and should serve as a platform for professionals to share ideas and explore new literature related to current development within the field.

It was also mentioned that in-service training is done by therapists or other professionals coming into the school environment: *"Well the in service training comes along with people, like we had a facilitator here, she did an in-service. And then the therapists, because you've got your interns who are here for a year, they will pick certain, they will ask us what would we like to learn more about?"*(15, L40 – 44). *"This woman from Australia came out it was a conference on Autism."*(16, L17). *"You know we had a teacher who came through to us, Misha<sup>4</sup>, from the US, and she was trained specifically in special needs. And she did specifically a four year training module on autism. And the things that she taught us both, because we had a lot of contact with her, was amazing."* (14, Focus group, L454 – 458).

Although in-service training is a valuable asset to all teachers, it is concerning to note that most of the training is done by other professionals, thus limiting knowledge transfer, as not all schools have access to therapists and other professionals.

### **3.3.4 Literature discussion: Theme 1**

Loiacono and Valenti (2010) reports that a large portion of teachers who graduate from teaching programmes, received a minimum amount of training in evidence-based practises for learners with ASD. They further mention that there is a big need to improve the training of all teachers who will instruct learners with ASD. If inclusive education is to benefit all learners with various impairments, principals need to acknowledge that all educators need to become competent and receive additional training in order to prepare them to work with these learners. The implementation of inclusive education is therefore dependant on support for teachers, via in-service and additional training, in order to meet the diversity of needs of all learners (Loiacono & Valenti, 2010; Potgieter-Groot, Visser & Lubbe- de Beer, 2012).

It is interesting to note that the teachers in this study themselves reported that their training did not adequately prepare them to work with learners with moderate to severe disabilities within inclusive classrooms. Downing and Peckham-Harding (2007) reported that 61% of teachers stated that they would be willing to co-teach learners with disabilities in their classroom, if they received proper training as well as the necessary resources to teach these learners.

One of the participants in this study mentioned that practical experience is of more value to her than an honours degree. Goodlad (1984 as cited in Schmidt, 2010) states that teachers often feel that they learn more from teaching experience than formal course work. Teachers often claim that experience is the best teacher (Schmidt, 2010). Although teaching experience is a valuable aspect of teacher training programmes, I argue that one should be cautious to see experience as more important than course work. There should be a balance between what is learned theoretically and applying theory within practice. There are also always advances in knowledge, and thus continuous learning in conjunction with field experience is promoted.

Loiacono and Valenti (2010) state that the success of teaching learners with ASD within an inclusive classroom, is dependent on the training that educators receive in particular in the pedagogies of Applied Behaviour Analysis (ABA), teaching methodologies and behaviour interventions. Swart and Pettipher (2001) states that in order for teachers to teach in an inclusive school, they need in-service training to equip them with instructional practices and technical skills to work with learners with diverse needs. In-service training will enable teachers to understand their roles and responsibilities within an inclusive environment, and assist them in understanding the importance of working collaboratively with others to support all learners. Furthermore, in-service training should be based on each school's needs and it ought to be context focused, thus addressing the everyday concerns of teachers (Swart & Pettipher, 2001). It is, however, concerning that the professional development of teachers in South Africa, has been sporadic, as the implementation of formal structures has been challenging. This is mainly due to the fact that the school curriculum is constantly reviewed and adjusted (Singh, 2011). It is evident

that continuous professional development is essential to address the gaps in teachers' training that could be as a result of time and change (Singh, 2011).

### **3.4 Theme 2: Identifying autism**

A strong theme that was evident in my data relates to the fact that a lot of learners are not identified as being autistic and as a result many of them are not diagnosed until a later stage of life.

#### ***3.4.1 Teachers do not recognise autism, leading to learners being undiagnosed***

The participants conveyed that teachers are not always aware of autism, and as a result they do not recognise learners with autism: *"Sometimes they don't realise."* (I2, Focus group, L423). *"No, I don't think they ever do, because that's the last thing on your mind, this kid is autistic."* (I3, Focus group, L426 – 427). *"And to be honest with you, most teachers are not aware of autism."* (I2, Focus group, L433).

The participants further mentioned that it is easier to identify autism, once you have had another learners with ASD in your class, or once you are told you are going to have a learner with ASD in your class: *"Maar ook as iemand vir jou sê, hoor hier daar kom 'n kind na jou klas toe en hy is outisties, dan gaan jy eers begin oplet, wat is outisme. En dan gaan jy sien hoe vinnig tel jy outisme op in 'n klas."*<sup>5</sup> (I3, Focus group, L430 – 431). *"You know when they do? If they have had another autistic kid in their class."* (I4, Focus group, L426 – 427).

From the above it is thus evident, that it is easier to identify ASD once you have worked with learners with ASD. Novice teachers with little exposure to ASD might not recognise learners with ASD, and as a result, many learners are undiagnosed.

One of the participants mentioned that learners often go undiagnosed, as teachers need to keep up with the curriculum, and therefore they do not have time to investigate why a learner is struggling at school: *"In a mainstream school you have*

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<sup>5</sup> Translation: But also when someone tells you: "Listen a learner with ASD is coming to your classroom." Then you will start recognising ASD.

*to keep up with the curriculum, you don't have time to sit here and fiddle with this. You just have to present your work, get the tests done, get your assignments in, so when there is a child not doing his work, I mean you've got six, eight, ten classes. You don't have time to really sit and worry about this child and say hold on what's wrong with this child.*" (I1, Focus group, L437 – 441). It is evident that teachers are under immense pressure to complete the curriculum and have various administrative tasks that they need to attend to. This leaves little time for personal engagement with students and restrains the amount of time available to further explore learner's challenges.

Another participant mentioned that because teachers do not have time to investigate learner's challenges, they often get labelled: *"You label him as a bad student, slow learner, but not autistic."* (I3, Focus group, L444). In response one of the participants mentioned that because no one suspected autism, learners sometimes only get diagnosed as adults: *"I mean we see people that are sometimes only diagnosed as adults. And they were just odd and had socially odd behaviour and nobody actually thought, maybe there is a reason for why this kid, or this adult is acting that way. Uhm and it's hard, it's very very difficult."* (I4, Focus group, L445 – 448).

It is thus evident that because of limited knowledge on ASD, and due to a heavy workload, teachers are not able to identify ASD, and as a result, learners are often labelled as odd or bad students, rather than identified as possibly having ASD.

### ***3.4.2 Literature discussion: Theme 2***

Burger, Cooper and Good (1982, as cited in Kesterson, 2012) mention that teachers attribute poor student performance mainly to ability, which is uncontrollable, and effort, which is controllable. In addition, teachers also attribute poor student performance to a lack of studying. Within schools, teachers often make negative attributions about learners with learning barriers (Kesterson, 2012).

Kesterson (2012) reports that according to research, teachers have limited knowledge of childhood disorders. As a result many teachers are not prepared to work with students with learning barriers. As a direct consequence of teachers' limited knowledge, many teachers label students as socially inappropriate, lazy and



stubborn. Due to teacher's workload and limited knowledge on childhood disorders, learners with ASD's unusual behaviour is often described as naughty or attributed to bad parenting skills. If teachers had knowledge of ASD, they would start questioning the behaviour that they describe as naughty (Higginson & Chatfield, 2012). One can deduct that because teachers do not have the knowledge to identify possible ASD, learners go undiagnosed.

This is of concern, as learners often only qualify for special education services once diagnosed. Although a diagnosis in itself should not determine the type of services a learner with ASD receives, it is helpful to establish the services needed to improve a learner's functioning in some way (Kesterson, 2012).

Baker (2012) reports that in a survey of 87 institutions of higher education, 41% of them reported that they offer no ASD-specific coursework within a special education degree. A further 77% of the institutions indicated that they had not developed autism competencies for their teachers. Even though these studies were done within the United States, it is evident in the participants' responses within this study, that our higher education institutions do not offer enough ASD-specific coursework.

Due to the fact that learners with ASD function on various levels, the type of support they need within the classroom environment will differ. Some may function with limited support, while others will have more intensive needs. Baker (2012) proposes that given this range of learners, teacher preparation programmes, need to approach teacher training from a three-tiered perspective. The three tiers related to: learners that can function with little support in a general education classroom, learners who can function appropriately with the support of a special education teacher on a limited basis, and those who need intensive comprehensive programmes within a specialist environment.

In order to develop appropriate models for teachers who will work with learners with ASD, it is thus essential for teacher preparation programmes to infuse evidence-based practices into their coursework. In order to reach this goal, there needs to be consensus amongst experts about the different skills needed by general education



teachers and special education teachers who will provide support services to learners' on different levels. Thus the standardisation of programmes across institutions can be feasible if there is an agreement about the skill sets that teachers need within this three-tiered approach (Baker, 2012).

The above reiterates the importance of teacher training with regard to ASD. If teachers are knowledgeable on ASD, they could identify ways of assisting learners, rather than label them as naughty.

### **3.5 Theme 3: Classroom practices**

The third theme relates to classroom practices that teachers employ in order to accommodate learners with autism within their classrooms.

#### ***3.5.1 Adapt to needs via programmes and aids***

In order to teach learners with ASD, the participants mentioned that they use autism specific programmes: *“The TEACH method we using, children must know what work they are going to do, how much work they going to do, what to do next and what is expected of them, and what is happening after an activity. Okay, we use the VERA Bank, it's all their curriculum stuff in there, we use the national curriculum, we use CAPS, Senasie, I combine the Senasie with it. I use my own ideas, uhm TEACH, PECS”* (I3, Focus group, L72 – 75; L210 – 512). Learners with ASD need structure and predictability, therefore, teachers use specific programmes to meet their needs. Teachers also use a combination of programmes within practice to be accommodating to learners specific needs.

Information regarding the mentioned programmes is outlined in Addendum J. Other than using specific programmes, the respondents also mentioned specific classroom practices and assistive aids that they use within the classroom.

Learners with ASD need routine and struggle with transition and change. Therefore they need to be prepared in advance if there will be a change in their routine and when there is going to be a transition: *“And if there is a change, then I have to remove that and give them a reason why there is a change.”* (I5, L118 – 119). *“I think transition from the one teacher to the next, you've got to make easy for him and he*

*needs to know who he is going to, what it looks like, where the bag goes and all his routine.*” (I6, L117 – 119). In addition to preparing learners for transition, the participants further mentioned that they use incentives to motivate the learners: *“We decided incentives works with him, so if he knows he's getting a reward or there is a possibility of a reward, then he'll work.”* (I6, L89 – 91). *“We use like their obsessions as a reward.”* (I4, Focus group, L281). The participants also mentioned that they use visual cues and schedules to assist learners with ASD in the classroom: *“Have signs there, because they visual learners.”* (I3, Focus group, L150). *“I use pictures as well. So I'll put like maths, and then there will be a picture of sums, and then I visualise everything for them.”* (I5, L116 – 118). *“I made like a graph.”* (I6, L92). The above-mentioned shows that teachers need to walk the extra mile, preparing schedules and visual aids in advance, to assist learners with ASD in their classroom.

In addition, teachers also try to assist learner's with autism to improve their social skills: *“Slowly you try and socialise them back into a more normal situation.”* (I5, L185 – 186). *“He's got his own desk, but I believe for him, because he is not social, I don't want to put him on his own. So he has to work in a group, and if that causes fights, that is something he has to deal with for the rest of his life. He has to learn to work with people so I try to make it as fair and equal as possible.”* (I6, L143 – 146). The social skills teachers try to instil in learners, is thus a life skill that will assist them into adulthood.

The participants also mentioned that learners with ASD need a tailored classroom environment: *“Make the room autism specific.”* (I3, Focus group, L146). *“They need careful placement in the classroom.”* *“A quieter atmosphere”* (I5, L148, 150). Learners with ASD present differently and therefore, teachers need to adapt their classroom practices to each learner's individual needs.

The participants mentioned that due to the different needs of each learner with ASD, they need to adapt their curriculum and have individualised education programmes (IEP's) for each learner: *“So there are a lot of things, we don't use just the curriculum, we cannot, it is not adapted to the children.”* (I3, Focus group, L519 – 520). In order to make adaptations to accommodate learners with ASD, teachers

need to know the learner well: *“The teacher really needs to know the child and you get to know them very quickly.”* (16, L109 – 110). *“And then ja I think as soon as the teacher knows the strengths and weaknesses, you are able to accommodate them.”* (16, L120 – 121). A personal account of each learner’s strengths and weaknesses are thus of paramount importance, if teachers want to accommodate learners with ASD within their classrooms.

### ***3.5.2 Literature discussion: Theme 3***

Lipsky and Gartner (1997) identified elements that are necessary to effectively support learners within an inclusive environment. One of the elements they emphasise is educational strategies that accommodate the unique needs of each learner, providing these learners with the opportunity to be equal participants within the classroom. Moores-Abdool (2010) proposes that each learner should have an IEP that should contain the following:

- Goals related to the learner’s academic, behavioural, physical and social needs.
- A list of special services that the learner will require, for example supportive aids, professional services and curriculum modifications.
- How the learner will be assisted to participate within the classroom with their peers and educator.
- Modifications that need to be made in order for the learner to complete assessments.

In addition to using IEP’s, the participants in the study all mentioned the importance of using visual aids and schedules within the classroom. The use of schedules, can in particular assist in providing structure as well as an overview of the daily classroom activities. Learners with ASD will benefit from schedules aided by photographs or drawings that can indicate the activities to be completed during the day. This will enable them to understand the structure of the daily events and prepare them for any transition that may take place during the day. These schedules can also assist teachers in explaining any changes in a daily routine. Teachers can,

for example, indicate a change of routine on the learner's schedule, in advance, thus preparing them that something will be different (Bornman, 2001).

In addition to using schedules, teachers need to be aware of learners' abilities and encourage learners' participation within the classroom (Bornman, 2001). Teachers should also provide learning material and classroom instructions in a visual format, as learners with ASD find it easier to work with visual information. A teacher can, for example, provide written instructions to a task, rather than giving verbal instructions (Koudstaal, 2005).

Taking into account the various programmes available to assist learners with ASD, one can see how important it is for all educators to know which teaching methodologies should be utilised in order to meet the educational needs of learners with ASD, in order to maximise their academic, social and behavioural success (Loiacono & Valenti, 2010; Moores-Abdool, 2010).

Although these strategies are available, one should acknowledge that learners' with ASD function at different levels, and therefore the level of environmental and teaching support they need will also differ from one learner to another (Harrower & Dunlap, 2001). The participants in this study did mention that the majority of these strategies such as using visual aids are common practice within the foundation phase. It should also be noted that there is a lack of research on including learners with ASD in the intermediate phase as well as at high school level, within remedial or mainstream classrooms (Harrower & Dunlap, 2001). Therefore one cannot assume that these specific strategies will work with learners within the above-mentioned schooling phases.

### **3.6 Theme 4: Challenges**

Teaching learners with ASD pose various challenges. The following sub-themes relate to the challenges that the teachers experience on a daily bases.

#### ***3.6.1 Learners all function at different levels***

Teachers working with learners with ASD, face the challenge of teaching learners functioning at various levels within one classroom: *"Even one class has got different*

*levels of functioning in it.*” (I2, Focus group, L89). *“So you can have a class, I taught intermediate two, which is, your ages can range from 12 to 16. And then you have to teach all those children as individuals, or group them into groups. And sometimes you can have three groups, sometimes you can have five groups.”* (I5, L101 – 104). Due to the different age groups and levels of functioning, one could deduce that the learners will all be at varying levels of emotional development, which could cause conflict within the classroom. To complicate matters further, learners with ASD often have multiple challenges that teachers need to address.

### ***3.6.2 Learners multiple challenges outweighs assets***

The participants mentioned that learners with ASD have various assets, which includes: *“Attention to detail, absolutely honest, loyal children, they’ve got motivation, they follow rules, visually very strong.”* (I4, Focus group, L223, 225, 226, 232, 246, 259). *“Hulle is hardwerkend.”*<sup>6</sup> (I1, Focus group, L229). *“Extremely strong with maths, very good with reading and spelling.”* (I5, L67 – 68). Although learners with ASD have the various assets that was mentioned, not all of them have the same strengths and this was described by one of the teachers as splinter skills: *“My children has got splinter skills, like Many<sup>2</sup> for instance he can do, he can name any place in the world, he can read any map, he knows all the names of countries, he just knows all of it. And then he is also good in maths, but he’s not great in maths, you can’t put him in a normal school, mainstream maths, cause he can do some parts of maths, but like when you give him a word sum, he’s not able to complete it, because they can’t understand the language off this.”* (I1, Focus group, L196 – 201). It is evident that learner’s splinter skills and poor language skills can pose various challenges within an educational setting.

In contrast to the above-mentioned assets, learners with ASD have various challenges that need to be viewed holistically: *“It’s a very lob sided view, if you’re only looking at the positives, it’s a very lob sided view of a child with autism, because*

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<sup>6</sup> Translation: They are hardworking.

<sup>2</sup> Pseudonym used to protect individual’s identity

*the positives are this much and the negatives that much.*” (I4, Focus group, L275 – 277).

Learners with ASD were described by the participants as having multiple challenges: *“The reality is, you sitting with ADD, emotional issues, learning difficulties, dyslexia.”* *“Those children have sensory issues, they have communication issues, and they have social issues.”* *“She’s got anxiety issues, she’s got learning difficulties and she is severely autistic and she’s got major obsessions.”* (I4, Focus group, L378, 380, 495 – 496, 563 – 564). *“I had a young girl who was epileptic and also autistic.”* (I5, L104 – 105). *“Sometimes he’s a serious hypochondriac.”* (I6, L48).

From the above it is evident that in addition to the impairments described in Chapter 2, teachers face the challenge of addressing not only one disorder, but a combination of challenges. This combination of challenges is often worsened by the fact that learners with ASD often have behavioural problems.

One of the participants mentioned that it is difficult for her to understand why a learner with autism displays certain behaviour: *I think my biggest thing is the emotional. “You can’t understand him when he’s crying.” “There will be other days that he cries for hours, and there is nothing you can do.”* (I6, L98 – 99, 101 – 102). Teachers could thus find it challenging to contain learners with ASD when they are emotional. One of the participants felt that behavioural problems posed the biggest challenge to her: *“My biggest challenge here was one year I had four behaviour issues.” “And the more severe cases are the ones that actually have behaviour problems, then it is difficult to control them.”* (I5, L105 – 107, 134 – 135).

The participants further mentioned that in addition to dealing with learners’ behaviour, teaching learners with ASD is emotionally challenging.

### ***3.6.3 Emotionally challenging***

The participants mentioned that it is an emotionally challenging experience for them, when it is evident that learners are not making progress: *“After three, four, five years, we actually say to them: “Nothing is happening.” “That’s the sad part.”* (I3 & I4, Focus group, L583 – 585). It is also difficult to know that not all learners have the financial

resources to attend residential workshops after school: *“So not everyone has the possibilities for that. And it breaks our hearts when that happens.”* (I4, Focus group, L634 – 635). It is also difficult for teachers to accept that some learners will eventually regress and have a bleak future: *“And then you’ve got other kids which is the kids we most disappointed with, the kids that will end up in either care facilities, pure care, uhm where they can’t do anything really, you know, any kind of work kind of stuff, and some sort of end up at home. We really try very hard for that not to happen, because we put in a lot of work and they regress. Within six months of sitting at home, they lose so many skills. That breaks our hearts, because I can tell you the teachers in this school put their hearts and soul into these kids, and if they lose the skills that you’ve worked so hard for, you know, 12 years for, uhm it’s heart-breaking.”* (I4, Focus group, L618 – 626).

It is evident that teaching learners with ASD can be a challenging and emotional task at times. In light of this it is inevitable that teachers need support in order to face such a challenging task.

### ***3.6.4 Literature discussion: Theme 4***

Children with ASD have a triad of deficits. These difficulties are displayed differently in each individual, and as a result it is often difficult for teachers, as they have to teach learners functioning at different levels within one classroom.

Learners with ASD can often have multiple challenges that can be displayed in various ways. They often display social isolation and they struggle to relate to others (Kerig & Wenar, 2006). They also struggle to interpret the emotional states of others and have trouble forming and maintain friendships (Hart & Whalon, 2011). In addition, learners with ASD have difficulties with the subtleties of social interaction. These learners struggle to understand how others think and feel. This is evident in their inability to predict the behaviour and intentions of others. It is also common for these children to ask inappropriate questions and to pay little attention to the response of others (Kerig & Wenar, 2006; Landsberg, *et al.* 2005; Wicks-Nelson, 2009).



Learners with ASD display restricted imaginative and inflexible thinking skills. Learners with ASD tend to focus on the immediate word and thus depend on routine and predictability (Landsberg, *et al.* 2005; Wicks-Nelson, 2009).

Learners with ASD also have impairments in communication. Some learners with ASD have difficulty to acquire language and reading comprehension, while others may have trouble developing the decoding skills that is necessary to master the mechanics of reading. Others who read often might struggle to interpret text (Whalon & Hart, 2011).

In addition to social, behavioural and communication impairments, learners with ASD may possibly have a variety of associated features, in particular they have an inability to empathise with others and struggle to form loving relationships with others. They may also express emotions inappropriately and occasionally, intense negative emotional responses are seen when change occur. Fears and phobias are also common amongst younger children. Learners with ASD often have an intelligence quotient below 70. Their visual spatial reasoning is often better developed than their verbal reasoning and social problem solving presents as a challenge. A small portion of learners with ASD also engage in self-harm behaviour like biting. Some learners are also prone to developing epilepsy in late adolescence (Carr, 2006). In addition to these challenges, learners with ASD are also likely to have behaviour problems.

Learners with ASD are likely to display challenging behaviours (Strain *et al.*, 2011). Potgieter-Groot *et al.* (2012), state that in order to engage learners in academic activities, teachers require specific knowledge and skills in order to manage learners' behaviour within the classroom. According to the ESP, learners' behaviour must be viewed in relation to a combination of factors within the child's systems. Utilising the ESP requires changes in various areas such as teachers' behaviour, classroom practices and the school environment, in order to support learner's diverse needs. Jordan (2008) emphasises that teachers must have an understanding of ASD, in order to provide a lens through which they can view learners' behaviour. Teachers must have an understanding of what a learner's behaviour means within a particular



case, for example, a learner with ASD who hits another child, may be attempting to play chase, rather than displaying an act of aggression. Strain *et al.*, (2011) state that systems should be in place for preventing and alleviating challenging behaviours. All behaviour programmes should be positive and include the following three components: preventative strategies, systematic instruction to teach more appropriate social behaviours as well as acceptable responses to challenging behaviours (Strain *et al.*, 2011).

From this, one can thus clearly see how important it is for teachers to receive proper training to understand and manage learners' with ASD's behaviour.

### **3.7 Theme 5: Need for support**

#### ***3.7.1 Multi-disciplinary approach***

All the participants in my study are fortunate to work in schools where there are a variety of therapists on the premises. They mentioned that they support each other by working as part of a multi-disciplinary team: *"You know what, we work as a team, we've got therapies, psychologists, so when I encounter a problem with a specific learner, I involve everyone, including the parent and the psychologist."* (I2, Focus group, L106 – 108). *"Oh no there is a lot of support, because what actually happens is if you have great difficulty then you'll go to somebody like Bev ( the schools educational psychologist), who will give you advice, and then if need be, play therapy. So that you work together as a team."* (I5, L55 – 58). One of the teachers mentioned that she also has the additional support of having a facilitator in her class to assist the learner with autism: *"Well he has his facilitator."* (I6, L80).

The teachers mentioned that not all schools are, however, fortunate to have various therapists, and thus not everyone can work as part of a multi-disciplinary team to provide support to one another and to the children, due to financial constraints: *"Speech therapists, OT, psychologist, you know just to name a few, because those children have sensory issues, they have communication issues, they have social issues, they need to have those, but the schools don't have them, because they don't have the money."* (I4, Focus group, L494 – 497). It is evident that it would be difficult to accommodate learners with ASD, if the services of multiple professionals are not available within the school environment.

### **3.7.2 Parental support**

In addition to assisting learners with ASD, one of the participants mentioned that there is also a need to give parents' advice on how to support their children's challenges: *"So what I've suggested to his parents was that they let him watch a couple of uhm wild life programmes, you know, educational wild life programmes on general knowledge."* (I5, L75 – 77). Another teacher mentioned that parents do not always understand autism and that it is difficult to provide them with support at times: *"His mom doesn't understand him, because they have quite traditional beliefs and things and you shouldn't be talking to your teddy bear and that kind of thing, and they believe it's superstitious."* (I6, L74 – 76). The role of culture thus also influence the way in which learners with ASD are treated by various adults in their lives.

These statements provide evidence that parents need support to understand ASD and that they need guidance on how best to support their child.

### **3.7.3 Literature discussion: Theme 5**

Parental involvement is a crucial aspect in the support of learners with ASD. Parents are seen as the experts of their children's lives and thus effective intervention depends on parental support. Parents need to engage with other professionals in order to identify effective interventions to apply within the home environment. When parents assume the responsibility for their child's educational programme, they are able to promote positive changes in the home environment to support the child's learning and development (Lynch & Irvine, 2009; Panerai, Zingale, Trubia, Finocchiaro, Zuccarello, Ferri, Elia, 2009; Strain, *et al.*, 2011). Ridge and Guerin (2011) mentions the importance of dismissing inaccurate information about intervention strategies for ASD. One of the key roles of teachers and professionals are thus to provide parents with accurate information about ASD and interventions, in order to assist families in making informed decisions regarding the support systems and interventions they choose to assist their children.

Strain *et al.* (2011) advocates the importance of developing formal and informal support, to assist families to make decisions regarding learners with ASD. Formal support includes changes to a learner's school programme, for example the use of an IEP. In effective educational practices, teachers provide support to parents,

providing guidelines on how to interact with their children. Provision should also be made for parent support groups, where emotional support can be provided to parents raising learners with ASD. The latter is examples of informal support. (Lynch & Irvine, 2009; Panerai, Zingale, Trubia, Finocchiaro, Zuccarello, Ferri, Elia, 2009; Strain, *et al.*, 2011).

The participants mentioned that they work as part of a multi-disciplinary team. The term multi-disciplinary seems easy to define as members of different professions working together. However, after extensive research, it is apparent that the terms multi-disciplinary and interdisciplinary are often used interchangeably (Wilson & Pirrie, 2000).

It is argued that interdisciplinary refers to two professions working together, whereas multi-disciplinary involves more than two groups working together. Working as part of a multi-disciplinary team can cause some potential tension, as people from different disciplines does not necessarily have a shared understanding. Different professions have different fundamental values, and thus there is ample space for debate (Wilson & Pirrie, 2000).

Bornman and Rose (2010) propose the use of a collaborative team in order to avoid the possible professional debate that can result in multi-disciplinary teams. This collaborative team, can be drawn from the home, school and community and can include members such as caregivers, friends, therapists, traditional healers and others. This team must then look at the individual, the challenges experienced and the learner's ability to participate in daily activities. The whole person is considered and participation is evaluated across the various life domains. The International Classification of Functioning, Disability and Health (ICF) can be used by the collaborative team to evaluate an individual's functioning.

The ICF considers the following nine life domains: learning and applying knowledge, ways of coping with general tasks and demands, communication, mobility, self-care, domestic life, interpersonal interactions and relationships, major life areas such as

education and work as well as community, social and civic life (Bornman & Rose, 2010).

Collaborative teams are a great initiative for schools, but one, however, needs to be realistic and acknowledge that not all schools can financially afford the services of various professionals. Within rural areas, the issue of access to support teams is another pressing issue (Bornman & Rose, 2010).

### **3.8 Theme 6: Inclusion of learners with ASD in mainstream/remedial environments**

With the current movement towards inclusive education, part of the discussion revolved around alternative educational placement for learners with ASD.

#### ***3.8.1 Placement in an alternative school environment depends on learner's level of functioning***

The respondents all agreed that it would be more beneficial to place learners with ASD in a remedial school environment and not within a mainstream school. This is, however, dependant on the learner's level of functioning: *"The remedial schools are more adaptive. I mean a kid like that will probably end up in a remedial school."* (I4, Focus group, L387 – 388). *"Definitely in a remedial school. I don't think so much in a mainstream school, because I think depending on the individual, I mean I'm thinking of Bongani<sup>2</sup> for instance, you can't see Bongani in a mainstream school for instance."* (I5, L124 – 126). It was further stated that remedial schools are also more appropriate, especially when learners have behaviour problems: *"Either a remedial school for the higher functioning and then a smaller environment with a one-on-one, for the ones that are high functioning but have behaviour issues, where they need to be contained."* (I5, L172 – 175). Adapting a classroom for a learner with ASD might pose as a challenge to some teachers: *"It's going to be very difficult to apply a lot of the things we do in a mainstream class for only one child."* (I4, Focus group, L322 – 323). Alternative placement<sup>7</sup> for learners with ASD depends on each

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<sup>2</sup> Pseudonym used to protect individual's identity

<sup>7</sup> Alternative placement could be within a mainstream or inclusive school environment, depending on each individual learner's ability.

individual's level of functioning: *"So I think to mainstream an autistic child, I'm not saying it is not possible, but it depends on their level of reasoning, and it depends on their level of their language and communication skills."* (I5, L135 – 138).

The teachers also mentioned that alternative placement will be best with younger children: *"Especially a younger child. We talking like foundation phase"* (I3, Focus group, L325, 333). The respondents also acknowledge that some individuals do go through mainstream schools, but that they need support, as the social component is very challenging for them: *"So there are kids who go through mainstream and they are okay, but they need support. They need to have someone sitting at home explaining social skills to them, that they can come back and say: "Hoor hier, dit het gebeur. Hoekom? Wat moes ek gedoen het?"<sup>8</sup> He needs support to be able to get through mainstream and not feel like a total and utter failure, because of the social element."* (I4, Focus group, L402 – 407). Learners with ASD will thus need assistance to understand social conventions. Learners with high average intelligence quotients, might be able to cope with the academic demands of mainstream schooling, but their inability to understand and engage in social situations will make it difficult for them to cope: *"You get kids who go through mainstream, you do, but there are a lot that struggle. Even though the IQ's are sitting in the 120, 130, 140, 150, 160 range, super incredibly intelligent children, uhm it's about the social."* (I4, Focus group, L410 – 412). In agreement one of the teachers stated that learners with ASD will easily be ostracised: *"And I think they will also be ostracised."* (I5, L131 – 132).

In summary it is evident that the participants is of the opinion that it will be possible to place learners with ASD within a remedial school environment as the classes are smaller and the social component of schooling will be easier to adjust to within a smaller classroom.

### ***3.8.2 High need for alternative placement***

It was evident that there are not enough schools for learners with ASD: *"The truth of the matter is, there are not enough schools for children with autism. The truth of the*

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<sup>8</sup> Translation: Listen, this is what happened. Why? What should I have done?

*matter is I have closed my applications for the school, we are sitting in June. I'm not going to be assessing any more children than what is on my waiting list for this year. I've got enough children to assess for the whole of next year already, sitting, waiting for assessments. I've already got too many children to fill the holes that we are going to have for next year, already on my waiting list, so it means everyone else that I see, that's a candidate for the rest of the year, sorry. You can sit somewhere else. So do you understand the necessity for kids to be accommodated in remedial schools, in mainstream schools.” (I4, Focus group, L460 – 469).*

The participant felt strongly that learners with mild ASD should be accommodated within alternative schools: *“Because we who are the specialists, don't have enough hands, and we need to take the severe cases and the more milder cases, other teachers should feel comfortable and know what to do, because most teachers will do it, if they know what to do.” (I4, Focus group, L470 – 471).* Thus if teacher's formal training prepared them to work with learners with ASD, they would not be scared of the unknown, and they would be willing to make accommodations within their classrooms to accommodate learners with ASD. Another participant was in agreement with this statement: *“But I think the best placement for autistic children is either in an autistic environment for the severe cases like CARD or here (remedial school).” (I5, L133 – 134).*

In order to place learners with ASD within a remedial school environment, the participants suggested various adaptations that can be made within the classroom. They also placed emphasis on the fact that one would need specific resources to support the learner within the classroom.

### ***3.8.3 Adaptations and resources to support learner***

In order to accommodate a learner with ASD, everyone must be informed that a learner with ASD will be joining the class. Everyone should know what ASD is, as well as how and why learners with ASD act in specific ways: *“En dan obviously, jy moet jou ander kids laat weet, dis hoe hy is en moenie lag nie, jy weet, because they also tease. Jou onderwyser, jou assistent, jou kinders, almal moet voor die hand*

*weet dat so kind wel in die klas gaan kom.*<sup>9</sup> (I3, Focus group, L355 – 356, 372 – 373). Teachers need to explain to other learners within their classroom, what challenges learners with ASD have: *“You find that what happens in an environment like this, the children accept each other for who they are. And then only Sandi who is a very bright little boy would say: “I don’t think he knows what he is talking about.” And I took Sandi aside and I said: “Sandi you know what, that is one of Lewabo’s problems, he doesn’t understand what he is saying, and if he reads a story, he doesn’t understand what he has read. So if you ask questions, he’s going to give his silly answers, because that’s his challenge.” And then that stopped.”* (I5, L82 – 88). Learners will accommodate each other, if they understand each other’s challenges: *“The other kids here are so accommodating of him, and when he says silly things, because he’ll answer the most ridiculous things and they know that they shouldn’t laugh or nothing is funny and they absolutely fine.”* (I6, L81 – 83).

In addition to informing everyone about learners with ASD, teachers must also use visual aids and provide the learners with structure: *“You change that kid’s station, or his work table, make a little visual aid for him next to his table showing this is what you are going to do today, if you need help you do this, find out what level of functioning he is on, help him to cope with what he can understand.”* (I3, Focus group, L172 – 175.) *“I think that’s going to be the big thing you going to make a difference with, is the visual and the predictability and giving predictability.”* (I4, Focus group, L352 – 353).

In order to work with learners with ASD, the teachers mentioned that one need various resources including: *“Clicker, writing with symbols, camera and computers.”* (I2, Focus group, L486, 491). *“Velcro, laminating sheets, a laminator. You need the Internet, you need the Internet definitely.”* (I3, Focus group, L484, 493). Other than physical resources, the assistance of therapists is also needed: *“Speech therapists, OT.”* (I4, Focus group, L494).

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<sup>9</sup>Translation: And then you obviously need to let you learners know, this is how the learner is, don’t laugh, because they also tease. Your teacher, your assistant, your learners, everyone must know beforehand that such a learner is going to come to your class.



The reality is, however, that resources are expensive and not all schools can afford the needed resources. One of the participants, however, mentioned, that if schools were to have all these resources, learners with ASD could easily be accommodated within remedial schools: *“They need to have those, but the schools don’t have them, because they don’t have the money. It’s as simple as that. And that’s why, there are some children here, but if things were different, they could have maybe been placed in a remedial school.”* (I4, Focus group, L496 – 498).

### ***3.8.4 Literature discussion: Theme 6***

Jordan (2008) mentions that learners with ASD will need specialist support, this does, however, not need to take place within a segregated setting. He further mentions that there will still be a need for specialist schools, but they should only cater for extreme cases. Specialist schools in essence should be resource schools, providing guidance on how to work with learners with ASD. They should thus work in collaboration with other schools to bring about effective inclusion. Thus specialist schools should be viewed as supporting an inclusive education system, rather than an alternative to it.

The participants in the study mentioned the importance of informing everyone that a learner with ASD will be included within the classroom. Ochs, Kremer-Sadlik, Solomon and Sirota (2001) are in agreement with this statement, and suggest that inclusion of learners with ASD is enhanced when teachers as well as classmates are informed about ASD. It would thus be ideal if parents and teachers could work together to facilitate peer awareness of the strengths and challenges of learners with ASD.

In order to teach learners with ASD, various resources and services are needed, for example, graphic symbols (PECS) might be needed. These symbols can be displayed on low-technology displays such as communication boards, object boards or E-Tran (symbol attached to a frame). High technology could also be used such as speech-generating devices like GoTalk or Talara (Bornman & Rose, 2010). Although all these assistive devices are available, financial limitations often impact



the type of services that learners with ASD are able to receive (Lynch & Irvine, 2009).

### **3.9 Conclusion**

Within this chapter, the various themes that emerged from the data were discussed. From the data, it is evident that teachers feel inadequately trained to work with learners with ASD. Furthermore, it is evident that learners with ASD need various services and resources to promote their functioning within a school environment. Financial constraints, however, place a damper on the provision of these services to all learners. Teaching learners with ASD can pose various challenges to teachers, and they will need support in the form of other professionals and in-service training to assist them in order to employ effective educational practices within their classrooms.

# CHAPTER 4: CONCLUSIONS AND RECOMMENDATIONS

## 4.1 Introduction

Within Chapter 3, the results and findings of the study were discussed in light of the sub-themes and themes that emerged from the data. The themes were then further discussed in relation to current literature. Within this chapter, I will revisit the conceptual framework and answer the sub-questions and the primary research question. Thereafter, the possible contributions and limitations of the study will be discussed. In conclusion, recommendations are provided, related to further research, training and practice.

## 4.2 Conceptual framework revisited

As discussed in Chapter 2, the conceptual framework for the study was the ecosystemic perspective. This theory was chosen, to demonstrate how the various systems impact each other, as well as the context in which individual teachers function and develop.

The term ripple effect is used to describe how change within one system causes change in the others (Donald *et al.*, 2006). Thus when looking at the experiences of teachers within the microsystem, one need to consider the impact that the other systems have on the individual teachers.

Teachers working with learners with ASD, work collaboratively with other teachers, professionals and parents. Teachers interact with these professionals to make decisions on how to best support learners with ASD within the classroom as well as in the home environment. All these role players thus impact on the experiences of teachers. The interaction between the systems, known as the mesosystem, was explored, in order to gain a perspective of teachers' interactions with parents, education departments and other professionals.

On an exosystem level, the study explored the training teachers received from higher education institutions, as well as the in-service training that their schools provide

(Donald *et al.*, 2006). Teachers placed emphasis on how their formal training did not adequately prepare them for practice. Furthermore insight was gained regarding the programmes that are implemented in the schools, such as PECS and ABA. These *programmes* are chosen by the school management. It is important that these programmes are chosen by management in accordance with the specific needs of the learners within their schools. These programmes have an impact on teachers within practice, as they need to adapt the programmes to the needs of the learners within their classroom, and they need to develop resources for their classrooms to support the programmes that they use. For example if they use PECS, they need to print and laminate the cards, they need to make it accessible to learners and they also need to know how to implement the programmes. Being exposed to the various autism specific programmes, contributes to teachers professional development as they are learning new knowledge as well as skills to apply within their classrooms.

The macrosystem focus on how societal norms, cultural traditions and national legislation influence a teacher. Within the study attention was given to the inclusive education policy, and the impact it has on teachers within the classroom (Graber, Woods & O’Conner, 2012). With the implementation of inclusive education, teachers are facing the challenge of teaching learners with different barriers to learning within the same classroom. Information was gathered regarding teachers personal account of how they implement inclusive education practices within their schools.

### **4.3 Addressing the research question**

Within this section, the main research question will be addressed. In order to support the main research question, sub-questions were formulated from the main purpose of the study. The following sub-questions were used in an attempt to address the main research question:

- Do teachers feel adequately trained to work with learners with ASD?
- What classroom practices do teachers use to support learners with ASD?
- What assets do learners with ASD have and how can they be utilised within the classroom environment?

- What are the challenges experienced by teachers teaching learners with ASD?
- What support services are available to support teachers teaching learners with ASD?
- What additional support do teachers need to create inclusive classroom environments for learners with ASD?
- Can learners with ASD be accommodated within mainstream/remedial classrooms?

These sub-questions will be addressed first, thereafter the main research question will be answered.

### **4.3.1 Sub-questions**

Within this section, the sub-questions of the study will be addressed.

#### ***4.3.1.1 Sub-question 1: Do teachers feel adequately trained to work with learners with ASD?***

The findings of the study suggest that teachers do not feel that they received adequate training to work with learners with ASD. Although the majority of the participants in the study furthered their formal teaching degrees, they were still of the opinion that the training they received did not prepare them to work with learners with ASD.

The formal training received by the respective participants seemed limited. Although they were made aware about autism, it seems like most universities merely provide a brief overview of autism. It was further mentioned that due to insufficient training, most teachers do not know what to do when they have learners with ASD in their classroom. Teacher thus feel disempowered to teach learners with ASD, due to limited knowledge and exposure to ASD within their formal training.

The participants, who have all been working in the field and have been exposed to the needs of learners with ASD, were all in agreement that teachers should receive

adequate training about ASD. The participants expressed a strong need that more information about ASD should be included in the formal training of teachers. It was further mentioned that all teachers should have some remedial background, as a lot of the strategies used within remedial teaching could benefit learners with ASD, and thus teachers will be empowered to work with learners with different learning barriers.

The consensus is thus that teachers feel inadequately trained and that they need additional training in order to effectively teach learners with ASD. Although the teachers are in favour of further training specifically focused on autism, the number of courses available is very limited. The only two courses currently available are the VERA course as well as a course that is presented at Quest. The participants further mentioned that Autism South Africa provides training, but with the amount of teachers needing training, one can predict that they will not have the necessary capacity to handle the training on their own. Even though these courses are available, it was further found that these courses alone cannot prepare one to work with learners with ASD. A combination of training as well as practical experience was suggested by the participants, as the most effective approach.

Practical training seems to be an essential component, which enables one to gain information on how to work with learners with ASD. It was mentioned that practical experience enabled the teachers to work with learners with ASD, as they could apply what they have learned during training.

With the advancement in technology and information, it is inevitable that teachers will need to further their training to develop professionally as teachers. In an attempt to bridge the gap in teachers' knowledge about autism, in-service training could be utilised to assist in the personal and professional growth of a teacher. In-service training should be well thought out and assist teachers by providing them with skills and knowledge to support their development (Loiacono & Valenti, 2010).

In addition to providing teachers with the skills and knowledge to work with learners with ASD, in-service training will enable teachers to understand their roles and

responsibilities within an inclusive environment, and assist them in understanding the importance of working collaboratively with others to support all learners. Providing in-service training that is focused on each school's needs and that is context specific is of paramount importance (Swart & Pettipher, 2001).

The implementation of professional development programmes of teachers in South Africa, has, however, been sporadic, as it has been challenging to implement formal training structures. This is mainly due to the fact that the school curriculum is constantly reviewed and adjusted. It is evident that continuous professional development is essential to address the gaps in teachers training that could be as a result of time and change (Singh, 2011).

The findings of the study suggest that although in-service training is seen as a valuable asset for teachers, most of the training is done by other professionals such as therapists, thus limiting knowledge transfer, as not all schools have access to therapists and other professionals.

From these findings, it is evident that the formal training of teachers needs to be revisited. The professional development of teachers is of vital importance in order to assist them in developing the necessary skills and knowledge needed to effectively teach learners with ASD in inclusive classrooms.

#### ***4.3.1.2 Sub-question 2: What classroom practices do teachers use to support learners with autism?***

The findings of this study indicate that teacher's use autism specific programmes such as TEACH, PECS, Senasie and the VERA BANK in combination with the CAPS curriculum within their classrooms. It was found that teachers need to have a personal account of each learner's strengths and weaknesses, in order to formulate an IEP according to the specific needs of the learner.

In addition to these programmes, teachers also provide visual aids to learners with ASD to give them the daily structure and predictability they need. Teachers also ensure that they prepare learners with ASD in advance when there will be a change in their routine or a transition from one classroom or activity to the next.

It was further found that teachers use incentives in order to motivate learners with ASD to complete their work. They use learners' obsessions as rewards and they link the work to learners' interest. For example, if the learner is obsessed with dinosaurs, all activities will have a dinosaur theme.

In addition teachers also tailor the classroom environment to accommodate learners with ASD. Teachers need to create a quieter atmosphere and carefully place learners with ASD within the classroom. Once learners are placed within the classroom, the teacher also needs to assist them with social skills. Teaching learners with ASD social skills, is a valuable life skill, as this is something they particularly struggle with.

Looking at the various classroom practices that teachers employ within classrooms to accommodate learners with ASD, it is evident that teachers will need training in the various programmes available, as well as knowledge on how to facilitate social skills within a classroom.

#### ***4.3.1.3 What assets do learners with ASD have and how can they be utilised within the classroom environment?***

The results of the study indicate that learners with ASD have various assets. They are loyal children who are visually very strong. They follow rules and are honest, motivated learners. The participants further mentioned that they are usually strong in the areas of maths, spelling as well as reading. Although learners with ASD have these assets, not all of them have the same strengths and this was described by one of the participants as splinter skills. For example, the learner might be an excellent reader, yet have no comprehension of what is read.

The findings of the study suggest that although learners with ASD have multiple assets, one needs to view each learner holistically as their assets are mostly outweighed by challenges.

#### ***4.1.3.4 What are the challenges experienced by teachers teaching learners with ASD?***

The findings of the study suggest that learners with ASD have multiple challenges. One learner with ASD can also have other learning disabilities, sensory difficulties, dyslexia, etc. This poses a great challenge to teachers who need to address a combination of challenges that are often coupled with behavioural problems.

In addition to dealing with multiple challenges, it was also found that teaching learners with ASD is emotionally challenging. Emotional challenges are experienced in particular, when it is evident that learners are not making progress or when they do not have the opportunity to attend residential workshops due to limited financial resources. Teachers also struggle to come to terms with their feelings when learners regress and eventually end up at home without much of a future. It was further found that in addition to dealing with these challenges, teachers often need to provide support to parents who have learners with ASD. One of the participants in this study mentioned that parents do not always understand autism and that it is difficult to provide them with support at times. Parents' understanding of autism is often influenced by traditional beliefs.

It is evident that teaching learners with ASD can be a challenging and emotional task at times. Teachers need to be knowledgeable on autism and have insight on how different cultures perceive learning challenges. In light of this it is inevitable that teachers need support in order to face such a challenging task.

#### ***4.1.3.5 What support services are available to support teachers teaching learners with ASD?***

The findings of the study indicate that the participants of this study are fortunate to have the support of other professionals on the premises. They are thus fortunate to address other professionals such as psychologists, occupational therapist and speech therapist when they are confronted with specific challenges. The reality, however, is that within the majority of schools, teachers are not as fortunate to have these supportive teams and will thus be left to their own devices to cope with the daily challenges of teaching learners with ASD. One can thus conclude that it will be very challenging for teachers to accommodate learners with ASD in their



classrooms, if the services of multiple professionals are not available within the school environment.

The findings further suggest that the participants are not fully aware that there is a difference between a multi-disciplinary and trans-disciplinary team. From my literature reviews it, however, seems like these terms are often used interchangeably.

#### ***4.1.3.6 What additional support do teachers need to create inclusive classroom environments for learners with ASD?***

The findings of the study suggest that teachers need support in terms of resources. They need computers, laminators, Clicker, writing with symbols, cameras and computers. Other than physical resources, the assistance of therapists is also needed as learners with ASD have multiple challenges.

Teachers also need additional training in the form of coursework or in-service training to assist them to become knowledgeable about autism. Teachers need training in the various autism specific programmes in order to know what to do when learners with ASD are placed within their classrooms.

#### ***4.1.3.7 Can learners with ASD be accommodated within mainstream/remedial classrooms?***

The findings of the study show that it would be more beneficial to place learners with ASD in a remedial school environment than within a mainstream school. Reasons provided by participants are that remedial schools are more adaptive, and the class sizes are smaller. Whether a learner can be placed in a remedial school environment, is dependent on the learner's level of functioning. Learners' reasoning ability, language and communication skills will determine if they can be accommodated within a remedial classroom. The findings of this study suggest that learners with high functioning autism would be easier to accommodate within a remedial classroom.

The findings further indicate that alternative placement will be best with younger children as the foundation phase utilise a lot of visual cues that learners with ASD

would benefit from. As learners become older, they struggle more with the social component of schooling, and thus it would be beneficial for them to learn social skills within the foundation phase that could assist them later into adolescence and adulthood. Learners with ASD will thus need assistance to understand social conventions.

The results of the study also suggest that there are not enough schools for learners with ASD. Schools specialising in autism have long waiting lists and parents struggle to find schools for their children. In relation to this information, it is thus evident that learners with low-support needs should be catered for in other school environments, and specialist schools should cater for the more severe cases. This is also stated within the White Paper 6, which emphasise that learners who require low-intensive support must receive it in ordinary schools. Those who need moderate support should receive it in full-service schools and learners with high-intensive educational needs should continue receiving support in special schools (Department of Education, 2001).

It is, however, concerning to note that institutional-level support teams who should provide learner and educator support is not readily available to the teachers that took part in this study. The establishment of institutional-level support teams is outlined within the White Paper 6. The aim is that support services will support the learning and teaching process, by both identifying and addressing learner, educator and institutional needs. These teams should also be supported by higher education institutions (Department of Education, 2001). It is clear that policies are in place for the implementation of learners with different barriers to learning within general education classrooms. However, looking at the responses from the participants in this study, it is evident that the ideals of these policies are far from being achieved.

#### ***4.1.3.8 Primary research question addressed.***

The participants' experiences of teaching learners with ASD seem to be similar between the two research sites. When teachers start teaching learners' with ASD, they feel relatively insecure about what to do within their classrooms, as they all mentioned being inadequately trained during their teacher training. Knowledge on

autism and practical teaching experience is important factors when teaching learners with ASD. Teachers teaching learners with ASD need to identify their own gaps in knowledge and take initiative to gain the necessary information and skills they need to be effective teachers.

Teaching learners with ASD is a challenging task as teachers are often facing learners with multiple challenges and disorders. This can often be an emotionally draining task, as teachers need to meet the individual needs of all learners functioning at various levels within one classroom. Teachers need to know how to implement social skills within a classroom, and they need to mediate the interaction learners with ASD have with their peers. Having a support structure is important when teaching learners with ASD.

In addition to teaching learners with ASD, teachers often need to provide parental guidance to the parents of these learners. From these findings, it is evident that teachers teaching learners with ASD are faced with an immense task on a daily basis.

#### **4.4 Similarities and differences between teachers' experiences at the two research sites**

The participants from both schools expressed that their formal training did not adequately prepare them to work with learners with ASD. Although teachers from both schools had further training in the form of courses and in-service training, those from the school specialising in autism, have had more autism specific training like the VERA course.

In terms of classroom practices, both schools place emphasise on the use of visual aids, being predictable and adapting to learners' individual needs. Teachers within the remedial school, however, does not use specific communication aids such as PECS, as the learners within their classrooms are able to communicate verbally. The use of individual workstations is also more prominent within the specialist school.

Teachers from both schools mentioned the emotional challenges they face when learners regress or when they struggle to contain the learners behaviour. Both schools also emphasise the importance of working as part of a team in conjunction with other professionals in order to best support learners with ASD.

#### **4.5 Possible contributions of the study**

The main purpose of the study was to look at the experiences of teachers teaching learners with ASD. This study highlights shortcomings in teachers' formal training and contributes to the existing knowledge of the challenges faced by teachers teaching learners with ASD. Furthermore, it highlights the importance of having collaborative teams to support the learning and development of learners with ASD.

The findings illustrate the need for more inclusive school environments, as placement for learners with ASD within specialist schools are limited. It further emphasises the importance of support structures for both teachers as well as the parents of learners with ASD.

#### **4.6 Limitations of the study**

The study was conducted in two schools with limited participants, therefore generalisability cannot be assumed. The aim of the study was, however, to get an in-depth understanding of the teachers' experiences of teaching learners with ASD. A clear description of the participants and research sites were provided, which provides evidence to readers whom can decide if the results are transferable to similar settings.

All the participants in the study were female, thus one cannot infer that male teachers would have similar experiences as their female counterparts.

#### **4.7 Recommendations:**

##### ***4.7.1 Training***

A strong emphasis need to be placed on developing the necessary infrastructure to support learners with ASD. This infrastructure includes adequate training of teachers, funding and programme development. All teachers should receive training to prepare them to work with learners with ASD as well as other disorders. Teachers

training should also focus on preparing them to work as part of collaborative teams within inclusive school environments. Teachers training should also include a component on parental guidance.

#### ***4.7.2 Recommendations for further research***

Based on the findings of the current study, it is recommended that more research needs to be devoted focusing on how to implement strategies specifically designed for learners with ASD and how these strategies can be utilised in order to educate learners with ASD alongside their peers. The current study can also be extended by looking at teachers' experiences of teaching learners with autism within schools where resources are scarce. The same study could also be done within the intermediate phase as this study was specifically done within the foundation phase.

#### ***4.7.3 Recommendations for practice***

It is recommended that our education programmes need to be revised in order to meet the needs of learners with ASD, this pertains to policies and funding schemes to make sure all learners have access to services. We also need to explore how we can assist learners with ASD into adulthood in order to prevent regression and to enable them to be fully participating citizens. Schools specialising in autism need to work closely with teachers and families to support their ongoing needs. All teachers should work towards creating more inclusive education environments and strive towards authentic inclusion. Collaborative teams need to be established within each school, in order to provide support services not only to learners with ASD, but also to teachers and parents who work closely with these learners.

### **4.8 Conclusion**

The purpose of this study was to explore teachers' experiences of teaching learners with ASD. The findings of the study suggest that teacher training programmes need to prepare all teachers to work with learners with various barriers to learning.

This study highlights the challenges teachers face teaching learners with ASD on a daily basis. It also stipulates the various programmes and resources that are available to support the needs of learners with ASD. The findings suggest that there is a need for schools to form collaborative teams to best support the needs of

learners with ASD as well as to provide support to teachers and parent working with these learners.

The findings of this study indicate that although inclusive education is promoted in our country, it is an ideal that is yet to be achieved.

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