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**A QUALITATIVE EXPLORATION OF THE SOCIALISATION ADJUSTMENT OF
CHILDREN WITH AUTISM SPECTRUM DISORDER WITHIN A SCHOOL
ENVIRONMENT**

Research Report for Masters in Psychology by Dissertation

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KEY WORDS

Autism Spectrum Disorder, Socialisation, School Environment, Educators, Special Educational Needs

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	i
ABSTRACT	iii
KEY WORDS	v
LIST OF TABLES AND FIGURES	x
LIST OF ABBREVIATIONS	xi
CHAPTER 1	1
OVERVIEW AND RATIONALE.....	1
1.1. INTRODUCTION.....	1
1.2. BACKGROUND AND CONTEXTUALISATION	1
1.2.1. Autism Spectrum Disorder in the South African Context	1
1.3. CLARIFICATION OF CONCEPTS.....	3
1.3.1. Socialisation	3
1.3.2. Friendships	4
1.3.3. Learning disability	5
1.3.4. Special needs.....	5
1.3.5. Barriers to learning.....	6
1.4. PROBLEM STATEMENT	6
1.5. RATIONALE.....	7
1.6. RESEARCH QUESTION AND OBJECTIVES	9
1.7. CONCLUSIONS AND INDICATIONS FOR PROCEEDING CHAPTERS.	
.....	10
2. CHAPTER 2	11
LITERATURE REVIEW.....	11
2.1. INTRODUCTION.....	11
2.2. AUTISM SPECTRUM DISORDER	12
2.2.1. What is Autism Spectrum Disorder	12
2.2.2. Diagnoses and prevalence.....	16
2.2.3. Education and schools	17
2.2.4. Teaching methods.....	18
2.2.5. Support and socialisation	21

2.2.6. Role of educators.....	22
2.3. EDUCATION POLICIES	24
2.4. SOCIAL AND SCHOOL ENVIRONMENT	25
2.5. MIDDLE CHILDHOOD	27
2.6. CHAPTER CONCLUSIONS.....	28
3. CHAPTER 3.....	30
THEORETICAL FRAMEWORK	30
3.1. INTRODUCTION.....	30
3.2. THEORETICAL FRAMEWORK: BIOECOLOGICAL MODEL OF HUMAN DEVELOPMENT THEORY.....	31
3.3. CHAPTER CONCLUSIONS.....	40
4. CHAPTER 4.....	42
RESEARCH METHODOLOGY	42
4.1. INTRODUCTION.....	42
4.2. OUTLINE OF RESEARCH PARADIGM	42
4.2.1. The Interpretivist Paradigm	43
4.2.2. Research approach.....	44
4.2.3. Research design	44
4.2.4. Qualitative Research.....	45
4.3. RESEARCH METHODS.....	46
4.3.1. Participants and sampling method.....	46
4.3.2. Procedure	48
4.4. DATA COLLECTION	49
4.4.1. Instruments.....	49
4.4.2. Data generation	51
4.5. DATA ANALYSIS AND INTERPRETATION OF FINDINGS	51
4.5.1. Thematic Analysis	52
4.5.2. Data Analysis Process Using QDA Miner	53
4.6. TRUSTWORTHINESS	56
4.7. ETHICAL CONSIDERATIONS	58
4.7.1. Ethical Clearance	59
4.7.2. Informed Consent	59

4.7.3. Voluntary Participation	60
4.7.4. Confidentiality and Anonymity	60
4.7.5. Distress Protocols	61
4.7.6. Data Storage	61
4.7.7. Results Dissemination	62
4.8. CHAPTER CONCLUSIONS.....	62
5. CHAPTER 5.....	64
FINDINGS.....	64
5.1. INTRODUCTION.....	64
5.2. EMERGING THEMES.....	65
5.3. QDA MINER SUMMARY OF FINDINGS	66
5.4.DISCUSSION OF THEMES IDENTIFIED.....	68
5.4.1. Theme 1: Factors affecting the children’s abilities/capabilities.....	68
5.4.2. Theme 2: Impact of support provided by educators	77
5.4.3. Theme 3: Socialisation and interactions	90
5.5. CHAPTER CONCLUSIONS.....	98
6. CHAPTER 6.....	100
DISCUSSION	100
6.1. INTRODUCTION	100
6.2.DISCUSSION OF FINDINGS	100
6.3.CHAPTER CONCLUSIONS.....	112
7. CHAPTER 7.....	113
REFLEXIVITY: SUMMARY OF CONCLUSIONS, LIMITATIONS IDENTIFIED, AND RECOMMENDATIONS.....	113
7.1. SUMMARY OF RESEARCH.....	113
7.2.SUMMARY OF FINDINGS	115
7.2.1. Findings in Relation to the Research Questions.....	115
7.2.2. Findings in Relation to the Theoretical Framework.....	117
7.3. VALUE OF RESEARCH IN RELATION TO RELEVANCE AND FINDINGS	118
7.4. STUDY LIMITATIONS	119
7.5. RECOMMENDATIONS FOR FURTHER RESEARCH.....	120

7.6. REFLECTION AND RECOMMENDATIONS FROM FINDINGS	121
7.7. CONCLUSIONS	122
REFERENCE LIST	124
ANNEXURES	
ANNEXURE A – ETHICS CLEARANCE	140
ANNEXURE B – GDE APPROVAL OF RESEARCH LETTER	141
ANNEXURE C – SCHOOL PRINCIPAL CONSENT FORM	142
ANNEXURE D – PARTICIPANT INFORMATION SHEET	143
ANNEXURE E – CONSENT TO PARTICIPATE	145
ANNEXURE F – INTERVIEW QUESTIONS	146
ANNEXURE G – SAMPLE OF TRANSCRIPT	148
ANNEXURE H - EXAMPLE OF CODING	159
ANNEXURE I – DECLARATION	160

LIST OF TABLES AND FIGURES

Figure 3.2.1. Bioecological Model of Human Development.....	35
Figure 4.5.2.1. QDA Miner Analysis	54
Table 5.2.1. Emerging Themes and Sub-themes.....	63
Figure 5.3.1. QDA Miner Frequency of Sub-themes.....	65

LIST OF ABBREVIATIONS

AAC	Augmentative and Alternative Communication
ASD	Autism Spectrum Disorder
DSM-V	Diagnostic and Statistical Manual of Mental Disorders, 5th edition
DoE	Department of Education
SES	Socioeconomic Status
ASA	Autism South Africa
SEN	Special Educational Needs
EWP6	Education White Paper 6
SIAS	Screening, Identification, Assessment and Support
FSS	Full-service School
SS	Special School

CHAPTER 1

OVERVIEW AND RATIONALE

1.1. INTRODUCTION

The diagnosis Autism Spectrum Disorder (ASD) has become more prevalent in recent years; however, minimal research has been conducted on the social aspect of this disorder (Weber, 2013). According to Adams (2024, p. 947), ASD has been recognised as a “global health concern”, however, studies have only been conducted in primarily first-world countries. Research on countries from sub-Saharan Africa is slowly being undertaken; however, the availability of information is limited. This is believed to be attributed to the lack of knowledge about the disorder as well as the availability of support for families and individuals diagnosed with ASD (Adams, 2024). Based on the increased prevalence of ASD diagnoses within the South African context (Weber, 2013), this research paper was directed towards gaining an understanding of the educators’ perception of the socialisation mechanisms of learners diagnosed with ASD at schools within Gauteng that cater for the educational needs of children with ASD. Information was gathered from interviews with educators whose perspective on child interactions within the school environment was the focal point.

1.2. BACKGROUND AND CONTEXTUALISATION

1.2.1. Autism Spectrum Disorder in the South African Context

Due to the neglect of special educational needs during apartheid, the South African Department of Education developed a policy to promote inclusive education in July 2001. The Education White Paper 6: Special Needs Education, Building an Inclusive Education and Training System

(Department of Education [DoE], 2001; Department of Basic Education [DBE], 2024) revealed that only a small percentage of children with educational disabilities received the necessary support, which had been provided along racial lines during the apartheid era (Kubayi, 2010). The paper emphasised the failure of the South African education system to offer adequate support services for learners with diverse educational needs (DoE, 2001). During apartheid, children on the autism spectrum who faced educational challenges were often placed in mainstream schools by default, where their specific needs were not adequately addressed (Kubayi, 2010). Education White Paper 6 aimed to tackle these issues by creating an inclusive education environment, ensuring that all children had access to training and support, regardless of their educational requirements.

The Department of Basic Education (DBE) strives to ensure that all children have equal access to education, regardless of their socioeconomic status (SES) or learning abilities (DBE, 2024). However, as noted by Hako (2022), implementing inclusive education in South Africa has proven to be a significant challenge for the government. According to Engelbrecht (2020), Gous (2021), Lombard et al. (2021) and Swart et al. (2017), some of these challenges include inadequate funding, lack of resources, educators who are inadequately trained in inclusive teaching methods, and infrastructural challenges for learners with disabilities. Unfortunately, cultural misconceptions and negative perceptions of learners with disabilities also contribute to the resistance from both educators and parents (Swart et al., 2017). Another obstacle Ndlovu (2020) identified is that the curriculum is considered too rigid and not adaptable to accommodate learners with special educational needs.

Statistically, autism spectrum disorder (ASD) affects approximately 1 in 59 children and is becoming increasingly recognised and diagnosed (The Star Academy, 2021). According to

Autism South Africa (ASA) (2020), it is estimated that between 1% and 2% of the population has been diagnosed with autism. Early signs of autism can manifest as early as 18 months; however, due to a lack of awareness and understanding, many children remain undiagnosed until much later (ASA, 2020). Institutions like the Star Academy are specifically designed to support children with ASD. Unfortunately, as highlighted by Hako (2022) and Deolinda (2021), these facilities can be costly, making them unaffordable for many parents living on a basic salary.

A study conducted by Erasmus et al. (2022) found that most families in South Africa are classified as low socioeconomic households. These families allocate a significant portion of their monthly income to medical aid, transportation, school fees, and therapeutic services to ensure their child diagnosed with ASD receives adequate support (Erasmus et al., 2022). Due to the high costs of treatment and care facilities, many of these children may not receive the necessary support.

According to a statistical report from 2022, there are approximately 24,900 schools across South Africa (Statista, 2023). Of these, about 2,281 are independent (private) schools, while the majority, approximately 22,589, are public (government) schools. In Gauteng, there are around 2,606 schools distributed across 83 cities (Schools for South Africa, 2022). Nationwide, there are 715 full-service or inclusive schools, and only 464 schools specifically established to cater to special educational needs (SEN) for children with physical and mental disabilities (Yates, 2020). Given these statistics, children diagnosed with ASD are likely to be placed in mainstream or full-service schools. As such, educators from all three school types (ordinary, full-service, and special schools) will be asked to provide insights into the socialisation of children diagnosed with ASD.

1.3. CLARIFICATION OF CONCEPTS

1.3.1. Socialisation

According to Santrock (2011, p. 610), the term social is described as “a factor of integration in social networks that can provide a sense of connection with others”. Socialisation has two meanings. It can be seen as being socially involved with others in activities. However, it is also seen as being conditioned to behave in an acceptable manner that aligns with society and social norms. This means that the act of socialisation is a learned process where attitudes and behaviours are learned to conform with what is seen to be desirable or appropriate based on the ideologies of society. Socialisation involves integrating into social networks and forming relationships, teaching individuals how to behave in socially accepted ways. In schools, this process is central to developing communication and relationship-building skills. Students learn to interact with peers and teachers while adapting their behaviours to fit societal expectations. For the purpose of this study, socialisation refers to the way in which students acquire communication and relationship-building skills within the school environment.

1.3.2. Friendship

This is a relationship that is established with peers and is made up of a mutual understanding, support and reciprocity (Mauder & Monks, 2019). A friendship is linked to well-being as well as an individual's socioemotional development. Strong friendships are based on shared interests, emotions, respect and support (Mauder & Monks, 2019). For the purpose of this study, a friendship is understood as an attachment or relationship with another individual where the autistic child is comfortable to express themselves.

1.3.3. Learning disability

A learning disability involves an inability to learn or understand language that is either written or spoken and may be due to an impairment in visual, mental capacity, hearing and/or motor difficulties (Santrock, 2011). According to Santrock (2011), in order for the disability to be classified as a learning disability, the learning problem is not primarily the result of impairments in hearing, visual or motor ability or due to socioeconomic disadvantages, culture or the environment. The learning disability would negatively affect the child's ability to learn and comprehend tasks (Kali et al., 2019). In terms of autism, the autistic child's ability to learn would be hindered based on their severity level. For the purposes of this study, a learning disability is understood as an impairment in mental capacity that negatively affects the child's ability to comprehend new information and perform tasks according to their developmental milestones.

1.3.4. Special needs

Special needs can either be understood as an impairment in mental capacity or a physical impairment (Kali et al., 2019). Special needs may occur from a developmental delay where the individual is not reaching developmental milestones for their age group, from a physical disability that may have occurred at birth, or behavioural/emotional difficulties (Kali et al., 2019). Society views special needs individuals as people who require support with everyday tasks and responsibilities that may be due to an impairment in their cognition or due to a physical disability. For the purpose of this study, the term special needs refers to a deficit in cognitive, emotional, behavioural and social functioning. This deficit would impact social capacity where assistance from peers and educators may be required.

1.3.5. Barriers to learning.

According to the Department of Education (DoE, 2001), barriers to learning are challenges or obstacles that hinder an individual's ability to learn. These barriers prevent the individual from acquiring new knowledge or skills. Examples of barriers are a lack of motivation, resources, health issues, a disability, or a lack of support from qualified educators (DBE, 2024). A barrier is a blockage or obstacle that prevents progress, movement, or access to something. In terms of this study, the blockage or barrier to learning refers to the child's inability to acquire knowledge due to their learning disability. They would require additional care and support to overcome the barriers in their learning environment.

1.4. PROBLEM STATEMENT

Individuals diagnosed with ASD often face obstacles in social settings, which impact their ability to interact and engage in meaningful conversations with those around them (ASA, 2020). Many of these challenges stem from difficulties understanding and interpreting emotions, social cues, expressions, and navigating social situations or interactions (APA, 2013). As a result of these limitations, they experienced social isolation, reduced opportunities to develop social skills, and an increased risk of mental health issues and overall well-being (Kapp et al., 2013; Miller et al., 2016).

Despite the growing awareness of ASD, families and individuals with the condition encounter challenges in accessing support and social skills training programs (Hako, 2022). Many interventions that had been implemented unfortunately did not address the unique needs of those diagnosed with ASD within a social context. This led to a further gap in social skills development and decreased their chances of fostering meaningful connections (Miller et al.,

2016). Consequently, this underscored the need for an evidence-based approach to support the socialisation of individuals diagnosed with ASD. Unfortunately, the disorder is often misunderstood, and the diagnosis carried a stigma that further ostracised and marginalised individuals on the spectrum (ASA, 2020). Increased awareness of ASD would lead to greater acceptance and support from the community, promoting inclusion and facilitating the integration of those facing the challenges of ASD into social environments. Additionally, if the schools design a training program focused on teaching emotional and social skills, individuals with ASD could be better equipped to navigate unfamiliar social settings.

1.5. RATIONALE

From a South African perspective, limited research has been conducted on the social aspect of ASD within a school environment (Weber, 2013). The South African government has implemented “the Screening, Identification, Assessment and Support” (SIAS) (DoE, 2014, p. 9) and Education White Paper 6 policies (DoE, 2001; DBE, 2024) in order to support learners with barriers to learning. Policies implemented by the DBE aims to ensure that all learners are accommodated within the school system (DBE, 2024). Even though a lot more children are being diagnosed with ASD, there is still a gap in knowledge about this disorder and what can be done to accommodate children in terms of their education (Deolinda, 2021).

A lot of government focus has been placed on standardising and improving education policies so that all children receive the same quality of education regardless of their SES or disability (DoE, 2001; DBE, 2024). However, while much emphasis has been placed on the education of children with barriers, little focus has been placed on their interaction with peers and educators. It should be noted that there is a difference between inclusion and access. Inclusion means that

it has been made available for everyone, and their needs are accommodated, regardless of race, age, gender, religion, cultural background, or ability (Stadler-Heer, 2019). Access refers to one's opportunity or ability to enter a place (Carpenter et al., 2014). This means that, even though the government has made provisions for those with a disability, it still does not mean that they have the opportunity to be included. As mentioned by Hako (2022) and Deolinda (2021), affordability has an impact on whether or not the child is able to attend a learning institution or special school, despite the DBE's aims to ensure that children with a learning disability are educated and catered for within their learning environment (DBE, 2024). Additionally, the government has placed little emphasis on assisting with ASD because every developmental disability is treated according to the same approach and guidelines (Deolinda, 2021; Hako, 2022).

Socialisation is an important skill for children to develop because it enables them to acquire the necessary communication skills to enhance their ability to grow and form meaningful relationships (Kali et al., 2019). By being able to socialise, children are able to build confidence, which will lead to them being more autonomous and resilient as they grow older. This skill builds self-esteem and children become more confident when interacting with others outside their familial familiarity (Santrock, 2011). Children learn how to comprehend and express their emotions through socialisation. A child with ASD lacks the ability to socialise and connect with others due to their inability to pick up on social cues and facial expressions (APA, 2013). This is why it is important to understand better how children with ASD socialise so that interventions can be implemented to assist these children within their school environment better. The study conducted by Cullen et. al. (2020) highlights the importance of inclusive education for children with SEN, but little focus has been placed on ASD. In order to better

assist children with a learning disability, one will need to understand the problem areas and what needs to be addressed. Based on research of various articles and academic publications (Argott et al., 2017; Buffington et al., 1998; Cullen et. al., 2020; Deolinda, 2021; Donohue & Bornman, 2014; Mauder & Monks, 2019; Scattone et al., 2006), more research is required to determine how children with ASD socialise within their school environment.

1.6. RESEARCH QUESTION AND OBJECTIVES

This research study aimed to determine the socialisation adjustment of children with ASD within a school environment by conducting interviews with educators at schools catering to SEN. The primary question this study attempted to answer was:

RQ: How do children with various severity levels of autism communicate and interact with their peers outside of the classroom, as perceived by an educator.

Based on this research question, the study set out to determine the following objectives:

- If children in middle childhood diagnosed with ASD are able to socialise outside of the classroom.
- To understand how the different levels of severity of ASD affect a child's ability to socialise.
- How educators perceive children with ASD in a social setting.
- If children in an active therapy program require assistance making friends and interacting with others.
- How the school environment assists or hinders children on the spectrum's ability to socialise and interact with their peers.

1.7. CONCLUSIONS AND INDICATIONS FOR PROCEEDING CHAPTERS

Despite the increasing number of ASD diagnoses, there remains a significant gap in understanding the condition. Individuals with ASD face numerous challenges, particularly in social interactions, and this lack of awareness often leads to ostracism and exclusion, hindering their ability to form meaningful connections. Investigating the social experiences of children with ASD is therefore essential for gaining a deeper understanding of their interactions within the school environment.

This research aimed to address this gap by gathering insights from educators who work closely with children with ASD. Through semi-structured interviews with educators from schools explicitly catering to these children, the study sought to explore how educators perceive and support the social development of children with ASD. The findings were analysed in relation to the research question and objectives by utilising thematic analysis to identify key patterns and conclusions. Additionally, the findings were framed within the context of educational policies and Bronfenbrenner's Bioecological Model of Human Development, providing a broader understanding of the influences on children with ASD.

The final chapter will reflect on the study's limitations and propose recommendations for further research, offering valuable directions for future work in enhancing support for children with ASD in educational settings.

CHAPTER 2

LITERATURE REVIEW

2.1. INTRODUCTION

The increasing prevalence of ASD worldwide emphasises the urgent need for specialised educational approaches and better support systems to meet the diverse needs of children on the spectrum. In South Africa, although the Department of Basic Education is tasked with establishing educational standards, there remains a significant gap in resources and specialised support for children with ASD (DoE, 2014). As a neurodevelopmental condition that affects communication, social interaction, and behaviour (APA, 2013), ASD can present considerable challenges in educational settings, particularly when children struggle to adapt to traditional teaching methods and classroom environments (Kali et al., 2019).

This research seeks to explore the socialisation of children with ASD within South African schools, focusing on their ability to form meaningful relationships outside of their familial environment. The study investigates various educational strategies and interventions, including Makaton, PECS (Picture Exchange Communication System), and the Montessori method, which are specifically designed to enhance communication, learning, and social integration for children with ASD. Additionally, the research examines the influence of national educational policies, such as the SIAS policy, which aims to identify and address the unique needs of autistic learners.

Through an in-depth exploration of these educational strategies and policies, this research aims to provide a clearer understanding of how South African schools are supporting children with

ASD and identify areas where improvements are necessary. The study also seeks to highlight the challenges faced by educators, parents, and children as they navigate a system often constrained by limited resources and insufficient training. Ultimately, the goal of this research is to contribute to the development of a more inclusive, equitable, and effective educational environment for children with ASD, ensuring they have access to the support and resources needed to thrive academically, socially, and personally.

2.2. AUTISM SPECTRUM DISORDER

2.2.1. What is Autism Spectrum Disorder

According to the Diagnostic and Statistical Manual of Mental Disorders, 5th edition (DSM-V) (American Psychiatric Association (APA), 2013, p. 50-52), an ASD diagnosis is made based on the individual's diagnosed severity level, social communication, and behaviours which are restrictive and/or repetitive. This disorder is characterised as “persistent deficits in social communication and social interaction across multiple contexts, including deficits in social reciprocity, nonverbal communicative behaviours used for social interaction, and skills in developing, maintaining, and understanding relationships” (APA, 2013, p. 31). In order to receive a formal diagnosis, “restricted, repetitive patterns of behavior, interests, or activities” also need to be present (APA, 2013, p. 31). It is a lifelong developmental disability that is first noticed in infancy and early childhood, where a child has delays in their developmental milestones (Scattone et al., 2006).

This neurodevelopmental disability is complex in nature and affects individuals differently. Children can be diagnosed with ASD between the ages of 18 and 24 months, when children should typically reach developmental milestones. Developmental delays can be identified, and

further testing must be performed before a formal diagnosis is made (Adams, 2024). A child diagnosed with ASD will experience difficulties in these key areas: repetitive behaviours; emotion processing; verbal and non-verbal communication; social interaction; difficulties with change and flexibility; and variations in sensory perception (APA, 2013).

Studies have shown that ASD is more commonly diagnosed in males than in females, with a typical male-to-female ratio of approximately 4:1. Recent research suggests that females with ASD may exhibit different symptoms than males, which can often result in a misdiagnosis (Dworzynski et al., 2012). Females with ASD often exhibit less apparent symptoms, particularly in social communication. While males tend to display more noticeable repetitive behaviours and specific interests, females are more likely to *mask* their difficulties by mimicking typical social behaviours to blend in. This can make their challenges less visible, resulting in delays in diagnosis and an increased risk of developing mental health issues like anxiety or depression (Hull et al., 2020). Females with ASD also tend to express a more substantial interest in socialising and forming friendships, even though they may struggle with the necessary social skills (Hull et al., 2020). This contrasts males who often show less interest in social interactions or prefer to engage in solitary activities, making their social difficulties more noticeable.

2.2.1.1. Sensory Sensitivities

Individuals diagnosed with ASD often respond to sensory stimuli (sound, smells, taste, light and touch) more intensely than a neurotypical child (Ben-Sasson et al., 2009; Tomchek et al., 2007). A child with ASD may experience sensory-overload due to their heightened sensitivity. What may be perceived as ‘normal’ or a ‘typical’ environment for a neurotypical child may

cause distress and be overwhelming for a child with ASD. Loud noises or bright lights may cause discomfort and lead to anxiety-induced behaviours or tantrums, where they withdraw from social settings (Ben-Sasson et al., 2009).

2.2.1.2. Social Interactions and Communication

Individuals with ASD experience difficulties with both their verbal and non-verbal communication. They struggle in social settings to interpret non-verbal communication, such as changes in tone, facial expressions, and body language (White et al., 2007). This affects their ability to initiate and hold conversations and form meaningful friendships and relationships. Social settings become overwhelming, and they tend to withdraw or isolate themselves, which is misinterpreted as being rude or disrespectful. They also have difficulty with eye contact, which is again misinterpreted as rude or disrespectful (White et al., 2007).

2.2.1.3. Flexibility and Change in Routine

For many children who have been diagnosed with ASD, minor changes to their environment, daily routine, or planned activities can be overwhelming. Sudden changes in their routines invoke confusion, anxiety and distress, which may lead to tantrums or aggressive outbursts (APA, 2013). Neurotypical children tend to be more flexible when it comes to change, however children on the spectrum are more rigid and become overwhelmed easily when their environment or planned activity has been altered (Adams, 2024).

According to Gordon et al. (2020), unexpected changes or a lack of routine can cause anxiety, meltdowns, and behavioural difficulties in children with ASD. Establishing a structured routine is crucial, as it helps manage sensitivities to sensory and environmental stimuli, improves

focus, and supports learning. Kern et al. (2013) also emphasise that routines help children anticipate activities, reducing anxiety and uncertainty. However, children with ASD vary in their ability to adapt; those with lower support needs may manage routine changes more easily than those with higher support needs (Weber, 2013). The social environment in schools plays a vital role in development, with inclusive education and well-trained staff being essential for supporting children with ASD. However, such services can be costly, and many parents in South Africa may struggle to afford the necessary support for their children with special educational needs (Hako, 2022).

2.2.1.4. Emotion Processing

According to Green and Latham (2012), children with ASD may process information differently, which may influence how they perceive and respond to emotions. They experience difficulties with emotional intelligence and lack an understanding of how to react to the emotions of others in social settings.

2.2.1.5. Repetitive Behaviour and Interest Focus

Many children with ASD display repetitive behaviours, such as hand-flapping, rocking, or repeating specific actions or phrases (APA, 2013). Their repetitive behaviours are misunderstood and seen as disruptive when they are in fact a form of coping mechanism to deal with sensory overload or anxiety. They also tend to focus intensely on a specific topic they are interested in, which may appear as excessive compared to a neurotypical child (ASA, 2020). Individuals with ASD are often misunderstood due to their 'odd' behaviours. It is important they receive support and are included in social settings.

In a school environment, children develop social skills and learn how to interact with others of a similar age. These experiences form the foundation for their ability to communicate, socialise, and build meaningful relationships. However, children on the autism spectrum often face challenges in social situations and may struggle to form or reciprocate connections with their peers (Horner et al., 2015). For this reason, the researcher chose to explore how children with varying levels of support needs interact and establish these connections within their learning environment.

2.2.2. Diagnoses and prevalence

ASD is a neurodevelopmental disorder that affects approximately 1 in 59 children (The Star Academy, 2021). A child can be diagnosed with ASD as early as 2 years old, but most receive a final diagnosis later, after a developmental history has been evaluated. Early signs of ASD may include a lack of eye contact, limited verbal and non-verbal communication, difficulties in language acquisition, and withdrawn behaviour, characterised by little to no interest in others (APA, 2013).

The age and pattern of onset are typically observed when a child is between 12 and 24 months, though in severe cases, signs may be noticeable around 12 months due to developmental delays (APA, 2013). Children may initially appear to be developing typically, only to later regress or plateau in their development. This regression often leads to a decline in social behaviours, necessitating a review of the child's developmental history for a formal diagnosis (APA, 2013).

In terms of prevalence, ASD is diagnosed four times more frequently in males than in females (APA, 2013). Genetic factors contribute significantly to its prevalence, with heritability estimates ranging from 37% to over 90% based on twin concordance rates (APA, 2013, p. 57).

Environmental factors, such as low birth weight and parental age at conception, have also been examined as potential contributors to the risk of ASD (APA, 2013).

As outlined in the DSM-V (APA, 2013), the diagnosis of ASD is based on the severity level of symptoms, as well as social communication difficulties and restrictive or repetitive behaviours. Children are classified into three severity levels: Level 3, requiring very substantial support; Level 2, requiring substantial support; and Level 1, requiring support (APA, 2013, p. 52). Children with severity level 3 typically need more assistance than those classified at level 1. Those with ASD often struggle to adapt to change, exhibit repetitive behaviours, and find it challenging to switch between activities. They may display negative behaviours, such as screaming or crying, when faced with unfamiliar tasks or changes in their routine (APA, 2013).

2.2.3. Education and schools

Children with severity level 3, according to the autism severity specifiers, would require a lot more support than someone with severity level 1 (APA, 2013). A child diagnosed with severity level 2 would require more support than a child with severity level 1 but would still need to attend a school that can provide more substantial support than for a child who is not on the spectrum (APA, 2013). These children will be able to attend school, but their support levels would determine the type of school or institution that could best accommodate their needs within their learning environment.

Children with severity level 2 and severity level 3 would need to be placed into a full-service (FSS) or special school (SS) in order to accommodate their educational needs. A child with severity level 3, or having high support needs, will require more care and support within a school environment because these children tend to be non-verbal with very limited interaction

and communication (APA, 2013). A child with severity level 1 or low support needs could be placed within an ordinary or mainstream school but require some support from their educator to acclimate to their school and classroom demands. The SIAS policy set out by the DoE (DoE, 2014), was implemented to improve the quality of education for vulnerable learners. Children with ASD would be considered vulnerable learners and their needs within the classroom would need to be addressed before they can be placed into the school system. The policy aims to standardise educational screening procedures in order to identify where additional support is required. The severity levels would need to be considered in the screening process to accommodate these children best.

2.2.4. Teaching methods

In Special Education Needs (SEN) schools, various teaching methods and strategies are employed to support children with developmental and communication challenges. Among these, Makaton is a widely utilised communication system designed to help children with conditions like Autism Spectrum Disorder (ASD) and Down Syndrome (Makaton SA, 2024). Makaton combines signs, symbols, and speech to provide a multi-modal approach to communication. The system encourages social interaction by enabling children to express their needs, desires, and feelings, even if they are non-verbal. By incorporating British Sign Language-based hand signs with speech, Makaton supports children who may struggle with literacy or verbal communication, offering them a visual representation of words and concepts (Makaton SA, 2024). This approach fosters inclusivity and ensures that all children, regardless of their communication abilities, can participate in social interactions and educational activities.

Another prominent teaching method used in SEN schools is the Montessori Method, which focuses on child-centred, hands-on learning. This approach is particularly beneficial for SEN children as it accommodates their individual developmental needs and allows them to learn at their own pace. The Montessori Method is built around the idea that children learn best when actively engaged with their environment and materials, and it encourages learning through real-life experiences and multi-sensory resources (Jones, 2024). The child's pace of learning is central to this method, enabling them to achieve their full potential without the pressures of traditional curriculum-driven education. Additionally, Montessori classrooms are typically mixed age, which allows younger children to learn from older peers, further enhancing their learning experience through collaborative interaction (Jones, 2024).

Supporting the individual needs of children with SEN is further facilitated by the creation of Individualised Education Plans (IEPs). An IEP is a tailored educational plan designed to address each child's unique needs and abilities. It is developed after assessing the child's strengths, weaknesses, and any areas requiring additional support. The IEP sets measurable goals and outlines the necessary interventions to help the child make progress academically, socially, and emotionally (Belsky, 2024). These plans are dynamic and can be adapted over time as the child's needs evolve. For children with additional support requirements, therapies such as speech and language therapy (SLT), occupational therapy (OT), and behavioural interventions may also be incorporated into the IEP.

Various therapeutic interventions play a key role in supporting children with SEN. Applied Behaviour Analysis (ABA) is an intervention that focuses on reducing negative behaviours by reinforcing positive ones. ABA breaks down tasks into manageable steps and uses structured strategies to support children in learning new skills and modifying behaviours. SLT is another

essential intervention, helping children improve both verbal and non-verbal communication skills. Children learn how to use gestures, interpret non-verbal cues, and understand changes in tone and facial expressions. OT assists with practical life skills, such as dressing and eating, while helping children with sensory processing issues better navigate their environments by addressing stimuli like textures, light, and noise (Belsky, 2024).

In addition to these therapies, social skills training (SST) is often used to improve a child's ability to interact with others. Through group activities and role-playing, children learn how to interpret social cues and engage in appropriate conversations. Cognitive Behavioural Therapy (CBT) is another intervention that helps children manage emotional challenges such as anxiety or depression. CBT teaches children strategies for emotional regulation, allowing them to develop healthy coping mechanisms for when they feel overwhelmed or stressed. Other interventions, such as Developmental, Individual Differences, Relationship-Based (DIR) therapy, also known as the Floortime model, utilise play-based activities to address sensory processing issues and encourage emotional development (Warren et al., 2011).

Additional strategies like Early Intensive Behavioural Intervention (EIBI), a form of ABA tailored to younger children, focus on improving communication and socialisation through intensive one-on-one sessions. Some children may also require medication to manage issues such as anxiety, aggression, or irritability, though these are typically used in conjunction with therapeutic interventions. Specific diets may also be considered to address behavioural challenges and improve overall health (Warren et al., 2011).

By integrating these diverse methods and therapeutic approaches, SEN schools provide a comprehensive and adaptable educational environment that fosters the growth and

development of children with varying needs. Whether through communication tools like Makaton, the child-centred Montessori approach, or personalised IEPs, these strategies ensure that every child has the support they need to reach their full potential (Warren et al., 2011).

2.2.5. Support and socialisation.

Children with ASD require varying levels of support based on their severity. According to the DSM-V (APA, 2013), autistic children often experience deficits in non-verbal communication and reduced social interaction due to challenges such as lack of eye contact and difficulty recognising facial expressions and body language. Socialisation is crucial for boosting self-esteem and promoting independence in children (Santrock, 2011). However, children with ASD may experience socialisation differently and often tend to isolate themselves in social settings (Santrock, 2011).

Argott et al. (2017) noted that children with autism struggle to learn through imitation and observation, primarily due to difficulties understanding social cues and gestures. A study by Buffington et al. (1998), cited in Argott et al. (2017), focused on teaching basic gestures to children with ASD to enhance their communication. The findings indicated that children in an active therapy program learned appropriate gestures to request desired objects more effectively than those without additional support. Buffington et al. (1998, p. 543) stated, “the gestures that the children learned in the affective category provided the children with behaviours that could be used to recruit social responses from others in their environment.” This highlights that children with ASD can adapt to their school environments when given the proper support and taught alternative means of communication to enhance their social skills. Through active therapy programs, these children can learn to articulate their frustrations and communicate their desires more effectively.

Children classified at Severity Level 1 may have some verbal and non-verbal communication deficits but can express their needs. While they may struggle to initiate social interactions clearly, they can verbally communicate within social settings (APA, 2013). Those at this level generally possess better social skills compared to those with more severe diagnoses.

Unfortunately, a significant issue is that many undiagnosed children with ASD are placed in mainstream schools without adequate support (Donohue & Bornman, 2014). Children at Severity Level 1 may remain unnoticed and end up in regular schools where their educational needs are unmet. This can occur due to a lack of formal diagnosis (Deolinda, 2021) or insufficient government placements in full-service or special schools (Hako, 2022). Although children at this level can function in mainstream settings, they still face challenges in socialisation.

2.2.6. Role of educators

A study by Weber (2013) found that teaching in South Africa has become increasingly stressful and demanding due to recent educational changes. One significant barrier to learning is the shortage of skilled educators equipped to facilitate effective teaching and learning (DoE, 2014). Children with ASD require specific support to keep pace with the school curriculum, and the lack of skilled educators can impede their progress and ability to learn. Cullen et al. (2020) noted that the quality of teaching, the school's philosophy, staff attitudes, and the overall learning environment significantly impact a child's development.

According to Donohue and Bornman (2014), mainstream classrooms in South Africa are often overcrowded, leading to the placement of children with various abilities and disabilities without the capacity to meet their individual needs. As a result, children with special educational needs

(SEN) may feel overlooked, receiving little to no attention or assistance, which hinders their progress. Weber (2013) pointed out that one primary reason for the children's lack of engagement is the unmanageable classroom size, which prevents educators from addressing each child's individual requirements. Many children diagnosed with different severity levels of ASD are placed in mainstream schools rather than in full-service or special schools, where their needs could be better managed (Deolinda, 2021; Hako, 2022). While children at Severity Level 1 may still be able to learn, they require greater involvement from their educators, which can affect their ability to socialise and communicate, as children with ASD often struggle to interpret both verbal and non-verbal cues.

The increasing demands of children have become overwhelming for educators in South Africa (Donohue & Bornman, 2014). Educators serve as knowledge disseminators in the classroom, but the pressures they face often prevent them from providing individual attention to each child (Weber, 2013). Nonetheless, including children with SEN in mainstream environments can foster the development of social skills that are essential for forming relationships and friendships. As noted by Gómez-Marí et al. (2021, p. 23), "the inclusion of individuals with ASD in the same educational environment with typically developing children promotes positive outcomes in terms of social and cognitive development." Children learn through observation and repetition, which means that with consistent exposure, children with ASD may gradually pick up on social cues (Buffington et al., 1998).

While inclusive education presents opportunities for children with ASD to access the school curriculum and interact with others, both educators and children will face challenges. Therefore, it is crucial for educators to receive appropriate training and knowledge about SEN

in an inclusive environment, enabling them to effectively teach children with ASD (Gómez-Mari et al., 2021).

2.3. EDUCATION POLICIES

The South African Constitution guarantees the right to basic education for all citizens. Section 29 (1) states, “everyone has the right to a basic education, including adult basic education” (DoE, 2001, p. 11). To address previously neglected areas of inclusive education, Education White Paper 6 was developed. The DBE aims to ensure that all children have equal access to education, regardless of their race, gender, age, cultural background, socioeconomic status, language, or learning ability ([DBE], 2024). As noted by the DoE (2014, p. 9), the “policy on Screening, Identification, Assessment and Support (SIAS)” was introduced to standardise educational screening procedures and identify children who need additional support. This policy seeks to enhance the quality of education for vulnerable learners by addressing barriers that hinder their ability to learn, such as language difficulties, physical disabilities, learning disabilities, and poverty (DoE, 2014). The SIAS policy is designed to support children in their learning environments, ensuring equitable educational opportunities from grade R to grade 12. It guides schools toward implementing inclusive education systems as outlined in Education White Paper 6 (DoE, 2014).

To determine learners' support needs, a screening process is conducted under the SIAS policy. This process aims to identify the specific needs of children within the school to maximise their participation (DoE, 2014). The assessment helps schools and educators understand the required level of support and outlines the protocols to effectively address learning barriers. The policy focuses on identifying, assessing, and supporting learners through a consistent screening approach (DoE, 2014).

The South African Schools Act (SASA) of 1996 recognises two types of schools: independent (private) and public (government) schools (DoE, 2014). There are significantly more government schools than private institutions across South Africa (Statista, 2023). Currently, there are 715 full-service or inclusive schools, with only 464 classified as special schools catering to children with special educational needs (Yates, 2020). This research paper will focus on ordinary schools, full-service (FSS), and special schools (SS). FSS are ordinary schools equipped with additional resources to address learning barriers (DoE, 2014), aiming to standardise education for learners with moderate support needs. Children diagnosed with autism at severity level 1 may attend a FSS or mainstream school where minimal support is required provided their support needs are considered low.

According to the DoE (2014, p. 8), SS schools are designed to provide “high intensity educational support programmes and services” for learners. These SS schools cater to children across various autism severity levels. Those on the lower end of the spectrum typically attend SS, where their needs are assessed and addressed appropriately. Children with severity levels 2 and 3 would be accommodated in FSS, ensuring a more standardised educational experience. All three types of schools aim to provide learners with equal access to quality education.

2.4. SOCIAL AND SCHOOL ENVIRONMENT

Bronfenbrenner’s Bioecological Model of Human Development breaks society up into various layers around the individual and looks at how each system interacts with one another (Kali et al., 2019). The social environment significantly shapes an individual’s perceptions and behaviours. For children with ASD, effectively communicating their needs to educators or peers can be a challenge. This difficulty reflects the proximal processes at play within the microsystem context for autistic children. Communication deficits constitute a significant

barrier for children with ASD (APA, 2013), a skill that those not on the spectrum often take for granted. These challenges affect how children with ASD perceive and engage within their social settings.

Children with learning disabilities like ASD may not develop social skills at the same rate and often require additional support to adapt (APA, 2013). Zaida Frank from Autism Western Cape highlighted that programs focused on ASD are frequently underfunded and understaffed (Hako, 2022). This underscores the urgent need for government intervention to ensure that individuals on the spectrum receive essential care and support. Frank also pointed out several factors contributing to the placement of children with ASD in mainstream schools, including delays in diagnosis, inadequate school infrastructure, and long waiting lists for autism-specific institutions (Hako, 2022).

According to Pillay et al. (2022), South Africa's education systems struggle to meet the needs of children with ASD. A study indicated that while the Western Cape is better resourced, the care provided to children with ASD remains inconsistent (Pillay et al., 2015). Many children with ASD face long waiting times for access to suitable schools that can address their educational requirements. During this waiting period, they are often placed in mainstream schools, which can further hinder their educational and social development, as the process of finding appropriate placements in full-service or special schools is prolonged (Pillay et al., 2018; Pillay et al., 2022). Even with policies established by the Department of Education, the implementation of these policies has been slow.

2.5. MIDDLE CHILDHOOD

Children in middle childhood, typically aged 7 to 11 years, are starting primary school and expanding their social circles (Kali et al., 2019). During this stage, children's egocentric thinking diminishes as they begin to interact more with others, shaping their understanding of the world based on these new experiences (Santrock, 2011). In the school environment, they begin to build a general knowledge base and learn about the world beyond their family.

Children on the autism spectrum face challenges in both verbal and non-verbal communication. Those with severity levels 2 and 3 often struggle to articulate their needs within the school setting. While typically developing children in middle childhood are forming connections and meaningful friendships, children with ASD may need encouragement from educators and peers to engage socially (Mauder & Monks, 2019). Cognitive development in children is enhanced through interactions with adults and peers, allowing them to acquire new skills and improve their problem-solving abilities (Kali et al., 2019). As they learn, their cognitive skills grow, promoting greater independence. However, for children with ASD, these opportunities for social learning may be limited due to their communication deficits (APA, 2013).

Between the ages of 10 and 13, children begin to form more significant relationships, often developing long-term friendships with peers they have known for years. However, children diagnosed with ASD face additional challenges in social interactions, making it harder for them to connect with others. Some form of intervention is typically necessary to facilitate their communication. This age group will be the focus of this research report due to these social challenges.

2.6. CHAPTER CONCLUSIONS

In conclusion, ASD presents a range of challenges for children, particularly in the areas of communication, socialisation, and learning. As previously highlighted, the severity of ASD varies significantly, with children requiring different levels of support based on their individual needs. Those with higher support needs, such as children diagnosed with severity levels 2 or 3, benefit from more specialised educational environments, such as full-service schools (FSS) or special schools (SS), where their specific requirements can be more effectively addressed. In contrast, children at severity level 1, although still requiring support, may be able to attend mainstream schools with tailored assistance.

The challenges associated with socialisation and communication, along with the need for appropriate support structures, underscore the critical importance of early diagnosis and intervention. As observed in South Africa, policies like the Screening, Identification, Assessment, and Support (SIAS) framework are vital in providing the necessary support to vulnerable learners, ensuring that they are not overlooked in mainstream educational settings. However, a significant gap remains in terms of adequately resourced schools, with many children facing long waiting times for placements in special education institutions, which exacerbates their developmental challenges.

The role of educators is also central to supporting children with ASD, but overcrowded classrooms and a lack of skilled educators often hinder their ability to meet the individual needs of these learners. Consequently, educator training in inclusive education and strategies for supporting children with special educational needs is essential. Educators must be equipped with the knowledge and skills necessary to provide adequate, personalised support to children with ASD, ensuring they can access the curriculum and engage socially with their peers.

Finally, while policies and frameworks are in place to ensure educational access and inclusivity, their implementation remains inconsistent. There is an urgent need for more targeted government action to address these gaps. With improved resources, training, and support systems, children with ASD can thrive in educational environments, enhancing their social, cognitive, and emotional development. Ultimately, this would help prepare them for greater independence and participation in society, promoting long-term positive outcomes.

CHAPTER 3

THEORETICAL FRAMEWORK

3.1. INTRODUCTION

The study of human development has long been shaped by theories that examine the intricate relationship between individuals and their environments. One of the most influential of these theories is Urie Bronfenbrenner's Ecological Systems Theory, which offers a comprehensive framework for understanding how various layers of a child's environment influence their development over time. Initially, Bronfenbrenner focused on the child's immediate surroundings, but as his thinking evolved, he expanded the theory into the Bioecological Model of Human Development. This revised model places greater emphasis on the continuous, dynamic interactions between the child and their environment, incorporating biological factors and recognising that as children grow, their engagement with the world around them becomes more complex.

The Bioecological Model is particularly valuable when considering children diagnosed with Autism Spectrum Disorder (ASD), as it provides critical insights into how these children interact with and are influenced by both their immediate and broader environments. Children with ASD often face unique challenges in social communication, socialisation, and behaviour, which can impede their ability to form meaningful relationships and participate fully in social and educational settings. The model helps to shed light on how factors such as the individual's characteristics, family dynamics, school environments, societal attitudes, and cultural beliefs can either support or hinder the development of children with ASD. By focusing on the interconnections between these systems, the Bioecological Model underscores the importance

of creating environments that are not only supportive but also inclusive, to foster the growth and well-being of children with ASD.

Furthermore, the Bioecological Model stresses that the child's development is not shaped by any single factor in isolation, but by the dynamic interactions within and between multiple systems. These systems range from the immediate microsystem (such as family, school, and peers) to more distal systems, such as the broader societal and cultural contexts. This interconnectedness is vital when understanding how children with ASD experience and navigate their world, as it highlights the multiple, often overlapping, influences that impact their development. This study, therefore, aims to explore how Bronfenbrenner's Bioecological Model can be applied to understand the development of children with ASD better. By examining how the interactions between a child and their environmental systems can be optimised, this research seeks to identify strategies that can support the developmental needs of children with ASD, ensuring they are able to thrive in both social and educational contexts.

3.2. THEORETICAL FRAMEWORK: BIOECOLOGICAL MODEL OF HUMAN DEVELOPMENT THEORY

Urie Bronfenbrenner developed the ecological systems theory, which explains that different environments influence human behaviour throughout an individual's lifespan. His original theory depicts human development through four environmental systems – “Microsystem, Mesosystem, Exosystem, Macrosystem” with the “Chronosystem” being included at a later stage (Santrock, 2011). Bronfenbrenner further developed his theory, referred to as the Bioecological Model of Human Development, because it underlines the biology of children in relation to their environment, which aids in their development (Härkönen, 2007). The original theory only focused on the context of the child's environment. The adapted bioecological model

expanded its approach and focused on the interactions between the child and their environment. Bronfenbrenner noted that the child's interactions with their environment become more complex as they mature and develop (Rosa & Tudge, 2013). The complexity of the child's interactions was previously omitted in the original ecological systems theory.

The distinct characteristics of individuals with ASD, including variations in their social communication, cognitive functioning, and sensory processing, play a substantial role in shaping their interactions within the various systems of the bioecological model. These interactions are not static; they are constantly influenced by both internal factors (such as individual traits) and external factors (such as environmental conditions) (Bronfenbrenner & Morris, 2007; Rosa & Tudge, 2013). For example, a child with sensory sensitivities may react differently in social situations, which can result in behavioural challenges in environments such as their school or other public vicinities. The child's ability to interact with peers and adults is also influenced by factors such as their development, communication skills, and access to interventions such as social skills training and speech therapy (Morrison & Smith, 2017).

Within an educational setting, characteristics such as executive functioning, attention, and emotional regulation play a crucial role in how well a child with ASD can interact with peers, participate in learning activities, and follow instructions. These individual traits are also shaped by external factors, such as the educator's responsiveness, the organisation of the classroom, and availability of resources. This highlights the importance of both the microsystem and mesosystem in influencing developmental outcomes for children with ASD (Bronfenbrenner & Morris, 2007). For that reason, the researcher chose to follow the bioecological model.

From a bioecological perspective, human behaviour is the product of continuous interactions, referred to as proximal processes, between environmental influences and internal motivations that are obtained from prior experiences (Kourkoutas et al., 2010). For proximal processes to occur, the child needs to be continuously involved in activities with other people, objects, or symbols for a certain amount of time. For example, playing with another child or a parent, learning to read or engaging in a complex task. This approach seeks to understand how interactions between the individual and the systems either promote or maintain a certain level of behaviour within an environment (Kourkoutas et al., 2010). It offers a different perspective on both behavioural and emotional difficulties displayed within different social environments. If a child is ignored or ostracised, they will not engage with their environment. This would influence the relationships they form with their parents, educators, peers, and relatives. According to Kourkoutas et al. (2010), a bioecological approach allows educators to better handle emotional difficulties experienced by children within a school since it allows them to understand how daily interactions influence each child in their classroom.

The bioecological theory defines development as the “phenomenon of continuity and change in the biopsychological characteristics of human beings, both as individuals and as groups” (Bronfenbrenner & Morris, 2007, p. 793). This means that development is seen as being a constant and continuous change throughout a person's lifetime. It focuses on how the individual grows in their environment and how they interact with social groups in their surroundings. Thus, the theory is relevant for this study given that the focus is on social interactions of children diagnosed with ASD.

The bioecological theory has four primary components: process, person, context, and time (Bronfenbrenner & Morris, 2007). The proximal processes are shared interactions that take

place between a developing child and people or objects in their immediate environment and become “progressively more complex over time” (Xia et al., 2020, p. 5). Examples of this would be a child’s interaction with their parents or friends, building a puzzle or reading. Over time, these interactions would change and become more complex as they age and develop.

According to Bronfenbrenner and Morris (2007), there are three types of person characteristics: disposition, ecological resource, and demand characteristics. Disposition characteristics can either hinder or sustain proximal processes. Persistence, curiosity, and self-efficacy are seen as “developmentally generative” characteristics that aid the development of proximal processes and allow children to explore their surroundings. Examples of “developmentally disruptive” characteristics are explosiveness, impulsivity and distraction (Xia et al., 2020, p. 6). These characteristics would hinder proximal processes because the child would struggle to learn or pay attention. Ecological resource characteristics look at mental, biological, and environmental resources where the child is either supported or hindered. Examples of ecological resources that are seen as a liability are genetics, damage to brain function, and low birth weight. Factors that are seen as an asset are experience, skilfulness and knowledge. The last characteristic is demand. The demand characteristics are those that either encourage or discourage interactions with the individual based on social factors. These social factors include whether or not a person’s approachable and whether they encourage or discourage interaction (Xia et al., 2020). These three types of characteristics affect proximal processes for different reasons.

The next component is Context, which consists of the micro-, meso-, exo-, and macrosystems. This component looks at how the individual is influenced by their environment. This component looks at the circumstances that the individual is placed in and how the situation impacts their development. It looks at the microsystems in relation to the child and how each

of the microsystems either hinders or promotes their development in any given situation (Xia et al., 2020). Bronfenbrenner believed that the child's development and socialisation depended on the interaction between the systems (Kali et al., 2019).

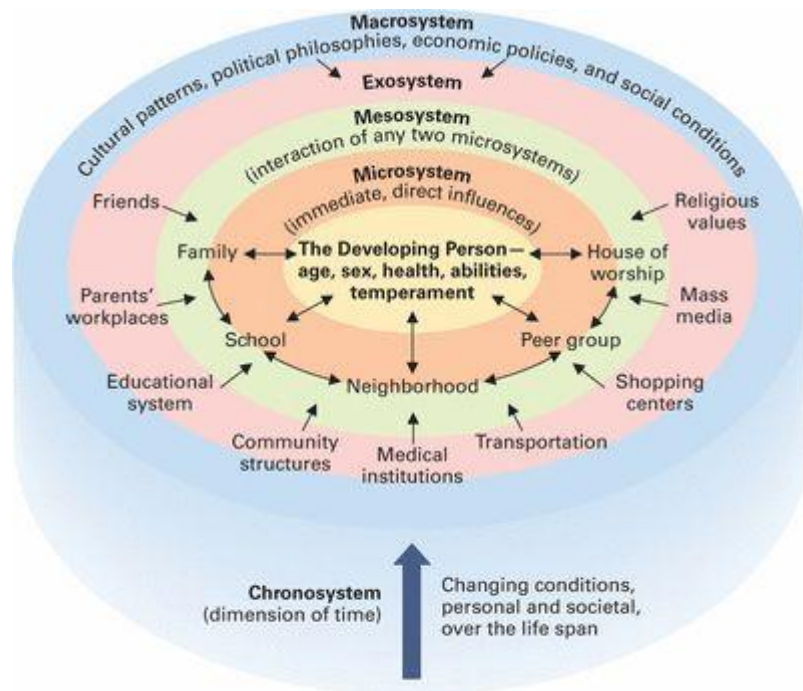


Figure 3.2.1. Bioecological Model of Human Development (Kumar, 2017)

The microsystem is the first system surrounding the child, as seen in Figure 3.2.1.: *Bioecological Model of Human Development*. It comprises their home, school or care facilities, peers, relatives and educators. It is the environment where the child has direct contact with others and will have the most influence. Individuals are influenced by and influence the beliefs and behaviours of others (Härkönen, 2007). Bronfenbrenner refers to this as “bi-directional influence” and it exists in each of the system layers within the environment (Härkönen, 2007). Even though the interaction between the child and the inner layer will have the most influence, the outer layer will also have an influence on the inner layer (Santrock, 2011).

The mesosystem is the next system that follows the microsystem. This system refers to the interactions between the individuals within the microsystem, about the child, but the child is not directly involved. These interactions would be between the educators and parents of the child as well as governing bodies and the educator. These interactions are about the child, but the child is not included in these interactions (Santrock, 2011). In other words, the link between the child and their peers or educators and the child to their neighbours or religious groups. A child with a learning disability, such as ASD, would require a lot more input from the environment in order to grow and develop according to their age group. For example, the parents of the child would have a conversation with the child's educator about their progress and what involvement is required from the school to ensure the child is accommodated within the classroom. The educator would then have a discussion with the principal of the school about the child and the parents' expectations. The principal of the school may then speak to the school-based support team about the implementations suggested by the parents, if necessary. The discussion is about the child, but they are not involved in the discussion with the educator or school.

It is also important to consider process and person characteristics that have an effect on the child, but the child is not directly involved. For children with ASD, understanding how processes (such as experiences and interactions) and person characteristics (including individual abilities, traits, and behaviours) shape the mesosystem can offer important insights into how best to support their development (Bronfenbrenner & Morris, 2007). For children with ASD, person characteristics may involve difficulties in their communication, differences in sensory processing, and diverse cognitive processing. Such characteristics play a key role in determining how children interact with their environment and how they are influenced by the

various systems within the Bioecological Model. Process characteristics refer to the interactions within various systems, particularly proximal processes. These are the everyday, immediate exchanges that influence the child's development. The nature, consistency, and frequency of these interactions can either support or hinder a child's growth (Bronfenbrenner & Morris, 2007). The mesosystem is crucial here, as it connects different microsystems in the child's life, such as their home, school, and community. For children with ASD, the mesosystem can either facilitate or restrict key processes, including social interactions, communication, and emotional support (APA, 2013).

The following system is the exosystem. This system influences the child, but the child is not a part of the environment, and it influences the people with whom the child has a relationship (Härkönen, 2007). It is the interaction between two systems where the child does not have an active role but still impacts their microsystems such as their home environment (Santrock, 2011). For example, changes that occur in their parent's work environment will impact the child's home environment. Changes made by the government to school procedures would influence the child's learning environment. The educator's training and capabilities would also have an effect on the child and their ability to learn. Training for educators within the exosystem refers to professional development programmes and resources designed to enhance educators' understanding of ASD and improve their ability to support children on the spectrum. These programmes often include strategies for adapting teaching methods in order to accommodate sensory sensitivities, management of classroom behaviours, and promoting social communication skills (Simpson, 2004). By providing teachers with these tools, such training helps create more inclusive and supportive learning environments for children with ASD.

The macrosystem follows the exosystem. The macrosystem could be considered a societal blueprint of cultures and subcultures within an environment (Härkönen, 2007). According to Santrock (2011, p. 29), it is the overarching pattern of cultural ideologies and attitudes that also form part of the “micro-, meso-, and exosystems characteristic of a given culture”. Generational cultural influences are passed down to the child in each microsystem. These cultural ideologies influence how the child interacts within their environmental systems (Kali et al., 2019). This outermost layer of the environmental system holds the cultural values, laws and traditions of different cultures. The influence on a child is not noticed until it is compared to another culture or societal influence (Härkönen, 2007). The comparison can be made when observing Western vs African cultural ideologies. A child from a strong African background would believe in traditional medicine and ancestral influences, whereas a child from a Western background would have different cultural ideologies that they follow (Härkönen, 2007).

Beliefs about learning disabilities, especially in relation to ASD, play a crucial role in shaping how children on the spectrum are supported both in educational settings as well as within society (Simpson, 2004). Viewing ASD as a unique learning difference, rather than an overwhelming disability, can encourage more inclusive educational practices, facilitate early intervention, and improve long-term outcomes for children with ASD (Härkönen, 2007). The way ASD is understood and conceptualised directly influences the support and interventions these children receive. Cultural attitudes, societal norms, and varying levels of awareness about ASD all impact how children are perceived and assisted. By promoting positive and well-informed beliefs, parents, educators, and communities can ensure that children with ASD have access to the tools and opportunities that they may need to thrive (Simpson, 2004).

During Apartheid, children with a learning disability were placed in mainstream schools where their needs were not met (DoE, 2001; DBE, 2024). The decisions made by the government impact the school environment and the child's ability to learn. As mentioned, during Apartheid, racial bias influenced placement of children with a learning disability, and children were unfortunately placed according to their race instead of by their educational needs and requirements. With reference to the Education White Paper 6, in South Africa, children with an educational disability need to be accommodated and placed in a school environment that can accommodate their individual educational needs (DoE, 2001). However, according to Meuser et al. (2023), a lack of knowledge and skills hinder educators in a classroom when trying to accommodate children with SEN.

The last component is time, which is broken up into microtime, mesotime, and macrotime. This component looks at how time affects the context of their development (Xia et al., 2020). Microtime looks at what is happening in the course of proximal processes and whether there is continuity or discontinuity with the individual's interactions. Mesotime views the proximal processes over days, weeks, or months to determine the changes in development. Macrotime looks at development over a person's lifespan. It looks at how changes occur across generations and how the processes affect the outcome of human development (Xia et al., 2020).

When looking at the autistic child, one needs to determine how proximal processes, person factors, context, and time either hinder or promote their development and how they form connections or disconnections with their peers. A child with ASD lacks the ability to read social cues such as facial expressions and body language and changes to a person's tone of voice (APA, 2013). Thus, their person factor will hinder their proximal processes, i.e., interactions, with their peers. Based on this, there would be more of a disconnect from their environment

without interference from an individual in their microsystems. Each of these four primary components should be considered when determining how they develop and form relationships with their peers and educators outside of their familiar home environment.

Bronfenbrenner placed belief systems within the microsystem and the macrosystem but also noted that they can exist in all the other systems. He believed that the belief system is contained within the microsystem but has a bi-directional influence on the other systems (Meuser et al., 2023). Education and belief systems are believed to be the most influential on the child within the microsystem (Santrock, 2011). Based on this, the belief system of the educators and peers in the microsystem would have an influence on the development of the autistic child while in the school environment. The belief systems of educators would impact the child's education and how they adjust within this environment. The beliefs and attitudes of their peers would impact their relationships and how they socialise.

3.3. CHAPTER CONCLUSIONS

In conclusion, the Bioecological Model of Human Development provides a comprehensive framework for understanding the developmental trajectory of children with ASD within the context of their environment. By emphasising the dynamic interactions between the child and various environmental systems, Bronfenbrenner's theory highlights the complexity of child development. The model's focus on *proximal processes*, the ongoing interactions between the child and their surroundings, demonstrates how these interactions evolve and become more intricate over time. For children with ASD, these interactions are crucial as they navigate challenges in social communication, behaviour, and learning.

Viewed through the lens of the Bioecological Model, it becomes clear that multiple factors, such as the child's individual characteristics, their immediate microsystem (family, peers, school), and broader societal contexts (macrosystem), play pivotal roles in shaping their development. For children with ASD, positive developmental outcomes are more likely when these systems interact in supportive and inclusive ways. However, when these interactions are hindered, due to factors such as a lack of understanding, negative societal attitudes, or inadequate educational resources, the child's ability to develop and form meaningful relationships can be significantly compromised.

The model's emphasis on time also underscores the importance of considering the child's developmental journey across different stages and the lasting impact of both micro and macro-level influences. Furthermore, the role of belief systems within these layers enhances our understanding, especially in educational settings, where educators' attitudes and practices are key to promoting inclusivity and engagement for children with ASD.

In the context of South African schools, the implementation of inclusive educational practices, as outlined in policies such as the Education White Paper 6, is critical for ensuring that children with ASD receive the support they need. However, challenges such as a lack of specialised training and resources for educators and cultural and societal factors continue to present significant barriers. Therefore, both policymakers and educators need to adopt a more holistic, bioecologically informed approach to addressing the educational needs of children with ASD. This approach should not only consider the child's immediate needs but also recognise the broader, interconnected systems that influence their development. By doing so, we can create a more inclusive and supportive educational environment, ensuring that children with ASD are provided with the opportunity to thrive and reach their full potential.

CHAPTER 4

RESEARCH METHODOLOGY

4.1. INTRODUCTION

This chapter presents a comprehensive overview of the research methodology that was utilised in this study and explains the rationale behind the chosen approach. This research was centred explicitly on educators' perspectives concerning children with ASD and their interactions with both peers and educators within the school environment. Given this focus, the subject matter is fundamentally both objective and open to interpretation, as it relies on observations, varied behaviours, and the complex emotions involved in these interactions.

The selected research paradigm and design align with the research methodology, ensuring that the study effectively depicts the details of the participants' experiences and observations. In the following sections, a detailed discussion will be provided to justify the reason for the chosen methodology, emphasising how it contributes to a deeper understanding of ASD within a school environment. This will involve an examination of the theoretical frameworks, as well as an explanation of how the chosen data collection methods respond to the research questions.

4.2. OUTLINE OF RESEARCH PARADIGM

A research paradigm is a set of values, techniques and beliefs that outline the approach to research (Rehman & Alharthi, 2016). It creates a framework that guides the understanding of phenomena and interprets the research. The interpretivist paradigm is based on the idea that the methods used in the human and social sciences differ from those employed in the physical sciences, as human experiences are inherently subjective (Creswell et al., 2020). Consequently, a paradigm favouring a quantitative approach would not be appropriate for this research. The

interpretivist paradigm invites the researcher to explore the various ways the elements of the physical world can be conceptualised, experienced, or observed (Rehman & Alharthi, 2016).

4.2.1. The Interpretivist Paradigm

The interpretivist paradigm was utilised for this study because the collected data was subjective. The interpretivist paradigm assigns meaning to human experiences, emotions and behaviour and allows for flexibility (Creswell et al., 2020). It believes in the notion that “truth and reality are created, not discovered” (Rehman & Alharthi, 2016, p. 55). In this research study, interviews with participants were conducted, and their responses were transcribed for analysis. The data collected is therefore subjective, based on observations of behaviour and emotions (Alharahsheh & Pius, 2020).

This paradigm relies on the interpretation of the researcher to assign meaning to the analysed data. To ensure accuracy during the analysis, the researcher will need to be aware of their own potential bias as well as social influences to ensure the data produces accurate results (Alharahsheh & Pius, 2020). The interpretivist paradigm focuses on making inferences from the collected data to create continuity in research by connecting findings with existing studies and developing explanatory concepts.

The flexibility of the interpretivist paradigm enabled the researcher to pursue a path of discovery, as the research design accommodated new and unforeseen empirical materials and increasing complexity. It is important to recognise that the interpretivist paradigm has certain limitations. While the researcher aimed to understand the phenomena and their complexities within their unique context, a gap arose in verifying the validity and practicality of the research using scientific methods. However, interpretation serves as a means for the researcher to deepen

their understanding of observed elements, offering a theoretical framework for future research (Creswell et al., 2020).

4.2.2. Research approach

This study made use of a qualitative research approach within an interpretivist paradigm to explore educators' perceptions of the socialisation of children with ASD within a school context. A qualitative approach was appropriate as the aim was to capture rich, detailed accounts of educators' lived experiences rather than measure variables or test hypotheses (Creswell & Poth, 2018). Unlike a quantitative approach, which focuses on numerical patterns and generalisability, this study sought to uncover the meanings, interpretations, and complexities of social interactions. For this reason, semi-structured interviews were the most suitable method (Patton, 2015). The interpretivist stance further recognised that educators' perspectives provide valuable insights into how children with ASD navigate peer relationships across different severity levels and school types (Thanh & Thanh, 2015). In line with this, purposive sampling was used to select participants with relevant expertise, ensuring diverse perspectives from educators in ordinary, full-service, and special schools. This approach prioritised participants' voices, yielding a more refined perspective of the socialisation challenges and opportunities faced by children with ASD in South African classrooms.

4.2.3. Research design

This research study utilised an exploratory design where the data collected was utilised to explore why certain phenomena within the study occurred. This allowed for a deeper understanding of the data being analysed by the researcher. It also allowed for more flexibility while exploring the collected data (Pratap, 2019). This design aimed to investigate a problem

or area with little prior research and sought to explain why a particular phenomenon occurred (Surbhi, 2017). In this case, the problem investigated was the social communication of a child on the autism spectrum, while the phenomenon examined was their interactions with peers outside the classroom. The data collected was subjective in nature, aligning with the chosen research methodology.

This study followed a cross-sectional design, concentrating on children within a specific developmental age range. A longitudinal study would be too time-consuming, requiring many months of ongoing data collection and analysis. In contrast, a cross-sectional study is a one-time research effort that does not depend on continuous sampling over an extended period. (Allen, 2017). Based on this area of focus, a cross-sectional study would be more suitable.

4.2.4. Qualitative Research

This research paper utilised qualitative research as its methodology, concentrating on assigning meaning to human behaviour, emotions, and experiences. Qualitative research was deemed the most suitable approach for exploring subjective topics such as behaviour and human emotion (Creswell et al., 2020). This method allowed for flexibility and aimed to provide deeper insights into social phenomena rather than attempting to apply "universal laws that can be generalised and applicable to everyone regardless of key variables and factors" (Alharahsheh & Pius, 2020, p. 44). The analysed data was subjective in nature and required the researcher's interpretation to derive meaning.

4.3. RESEARCH METHODS

4.3.1. Participants and sampling method

For this research report, the emphasis was on educators with experience working with children diagnosed with ASD to gain insights into their perceptions of these children's socialisation. Since the study focused on the socialisation of children with ASD within a school environment, the researcher consulted educators from various schools across Gauteng. Participants were selected based on a set of mutually exclusive criteria where screening questions helped identify qualified participants and those not meeting all population parameters were excluded from the sample.

Examples of screening questions included:

- Have you previously worked with children who have ASD?
- How long have you worked with children with SEN and are on the spectrum?
- What age group do you work with?
- Which autism severity level do you mostly work with?
- How many years of teaching experience do you have?

The saturation of each participating school determined the sample size. This sample of selected educators, from both public and private schools in Gauteng, was targeted for this research, with three to five educators from each school category invited to participate. The sample was selected based on mutually exclusive criteria. Non-probability purposive sampling allowed the researcher to choose participants based on their unique characteristics relevant to the research questions.

Teachers working with children across all three levels of autism severity were included, rather than concentrating solely on those classified as high functioning. This approach aimed to provide a richer data set and enhance understanding of how children at different severity levels interacted with their peers. The researcher focused on ASD because each severity level required specific care and support. While many schools accommodated various learning disabilities, only nine schools in South Africa were specifically designed to support children with ASD (The Star Academy, 2021). Given that 1 in 59 children were diagnosed with autism in South Africa (The Star Academy, 2021), this topic gained increasing relevance in the country.

The study considered a maximum of six schools within Gauteng that were within driving distance, allowing the researcher to include a total of 15 educators across all six schools. Educators working within the following categories of schools were included in this study were:

- Ordinary schools – only those that include children with high functioning ASD.
- Full-service (FSS) – those that include various ASD severity levels.
- Special schools (SS) – those that cater for ASD (mostly low and medium functioning)

The sample aimed to include three to five educators per school, representing the various autism severity levels in Gauteng. All three severity levels were incorporated to enrich the data for comparison. Participants who met the study parameters were provided with two consent forms to sign, indicating their understanding of their involvement and consenting to be recorded (Annexure E and Annexure F).

Educators of children in middle childhood, specifically in the intersen phase of primary school (grades 4 to 7), were included in the sample. This included nine female and six male educators between 27 and 46 years of age, with up to 21 years of experience. Children aged 10 to 13 were

expected to form more meaningful relationships with their peers, potentially leading to long-term friendships. This focus allowed the researcher to gather valuable insights into how children diagnosed with ASD developed relationships and communicated with one another.

4.3.2. Procedure

The researcher initially contacted school principals via email and telephone to explain the details of the study. Each principal was provided with an information sheet (Annexure D) outlining the study's purpose and procedures. Before the researcher's visit, principals were required to submit a signed letter on the school's official letterhead granting permission for the study to occur (Annexure C). The researcher also obtained permission from the Gauteng Department of Education (GDE – Annexure B) to ensure compliance. Once consent was obtained from the principal and the GDE, the researcher shared the signed copies of the permission letters with the University of Witwatersrand HREC in order to obtain ethical clearance. After receiving ethical approval, the researcher provided the school principals with a copy of the clearance certificate (Annexure A) to confirm that all ethical requirements had been met. These steps were completed before scheduling visits to the selected schools.

A meeting was set with the principal and the potential participants, and the researcher then explained the research process and invited educators interested in participating to answer a set of screening questions. All educators were given the opportunity to participate, and the information sheet was available at the meeting to ensure each potential participant understood the procedure and what their involvement would entail. A copy of the information sheet was also distributed for participants to keep, which included the researcher and supervisor's contact details on the second page for any questions or concerns. The screening questions were designed to verify that participants met the study's eligibility criteria, which included working

at either a FSS, SS, or ordinary school in Gauteng, with a minimum of one year of teaching experience.

Once the principal and educators agreed to participate, the researcher arranged to visit the school and set up interviews with each of the educators in a private room or office. Each participant was asked to sign a consent form (Annexure E) to both participate and be audio recorded before the interviews were conducted. The consent form was then signed by the researcher and stored securely in a folder before the interview commenced.

The audio recordings were made using Audacity, a software application installed on the researcher's personal laptop. This application enabled the researcher to capture clear and high-quality recordings of each interview. After each session, the recordings were saved with a unique participant code and securely stored in a password-protected folder on OneDrive to maintain confidentiality and data security.

4.4. DATA COLLECTION

4.4.1. Instruments

Semi-structured interviews were used to collect the relevant data. These interviews facilitated a deeper understanding of each participant's unique perspective on the topic, rather than relying on generalisations about the phenomenon being studied (Pathak & Intratat, 2012). This approach allowed the researcher to delve into the topic and employ probing questions when necessary. By using probing questions, the researcher was able to explore ideas that arose during the interview process, which enhanced understanding of each participant's interactions with children on the spectrum. One-on-one interviews were conducted to determine how educators observed the children's social interactions outside of the classroom.

Some questions which were asked are as follows:

- What behaviours have you observed when the child is trying to communicate?
- How often are the children left alone to socialise?
- For those in active therapy programs, do they show more confidence when communicating with their peers?
- What interventions have you implemented for child adaptation within their school environment?

Each interview was estimated to last between 40 and 50 minutes and consisted of 15 questions. The questions were carefully formulated to explore the topic in depth in order to generate rich, detailed data to answer the research question and meet the study's objectives. Based on the research question and objectives, the researcher crafted open-ended questions intended to encourage detailed and reflective responses from the educators (Annexure F). By preparing these questions in advance, the researcher established clear guidelines and ensured consistency throughout the data collection process.

A pilot interview was conducted prior to the main interviews to ensure that the questions were well-phrased and easily understood. Questions that only prompted a 'yes' or 'no' response were revised, and additional probing questions were incorporated to encourage more detailed answers. These follow-up questions included prompts such as asking participants to elaborate or clarify their responses, which allowed the researcher to gather richer information in the ongoing interviews. The transcript and recording were then shared with the researcher's supervisor, and it was suggested that the researcher probe participants more when they gave

vague or limited information. This was then utilised in the interviews with respondents, and the researcher was able to obtain more information to analyse.

4.4.2. Data generation

Recordings of the conversation with the educators were utilised to collect the data. These were done using a software program called Audacity on the researcher's laptop, and a backup was made using the researcher's mobile phone. A set of 15 semi-structured interview questions was used in the data collection process, and potential probing questions were added to assist participants in elaborating on their responses. These questions aimed to enquire about the children's interactions within the classroom concerning their educators, their interactions with peers both inside and outside of the classroom, observations about their behaviours, and to assess the support provided within each school.

The answers were recorded with the participants' consent and later transcribed verbatim in MS Word for analysis. Each school was assigned a code, such as School A, B, or C, to omit the name of the school from the research report. This approach ensured anonymity was maintained, with the school number known only to the researcher and their supervisor. Each participant was assigned a unique code based on the school and a participant number (e.g., School A Participant One = SAP01). This code appeared in the transcription alongside their responses to the questions.

4.5. DATA ANALYSIS AND INTERPRETATION OF FINDINGS

Qualitative data analysis was used to interpret the results of this research report. This type of analysis assigns meaning to subjective data, such as behaviour, emotions, and experiences (Alharahsheh & Pius, 2020). In contrast, quantitative research focuses on phenomena that can

be quantified through objective material related to facts and figures to test existing theories (Creswell et al., 2020). Given the subjective nature of the data analysed, quantitative data analysis would not have been appropriate. Therefore, thematic analysis was employed to interpret the subjective material and assign meaning.

4.5.1. Thematic Analysis

Thematic analysis is a method in which researchers pinpoint key themes or patterns that arise from the collected data (Guest et al., 2012). This approach aims to enhance understanding of the material and assess how the data addresses the research question. During this process, codes are generated from the raw data to represent the identified themes (Guest et al., 2012). In this study, recordings were transcribed and analysed to uncover potential themes. This allowed the researcher to recognise patterns and emerging themes based on semi-structured interviews with participants.

Thematic analysis uses inductive techniques to categorise concepts within the text (Guest et al., 2012). It emphasises both implicit and explicit ideas in the identification of themes. The identified themes inform the development of codes, which are then applied to the transcribed data (Guest et al., 2012). An inductive or 'bottom-up' approach was used, focusing on analysing and coding the collected data without preconceived themes or codes (Guest et al., 2012).

To identify themes, the researcher first read the transcriptions, highlighting frequently occurring key words and phrases. This initial analysis was then reviewed by the researcher's supervisor to ensure that important elements in the raw data were not overlooked. The supervisor's feedback prompted the researcher to re-examine the transcripts for any additional codes that may have been missed. The transcripts were also revisited in light of the literature

review to check for any key elements or themes that might have been excluded. Once these codes were identified, they were grouped to form potential themes, which were then organised into main categories.

By familiarising oneself with the raw data, the researcher was able to gain a deeper understanding of ASD and how the children with various support needs are supported by each of the schools. This process facilitated the identification of key elements within the transcriptions during the thematic analysis. It is also important to consider the advantages and disadvantages of thematic analysis. While it is forward-thinking and adaptable, not requiring a theoretical approach for justification as grounded theory does, it does however depend on a theoretical framework to guide the analysis process (Guest et al., 2012). Interpretations can be subjective and susceptible to researcher bias if not carefully managed. The researcher utilised the chosen theory, specifically the Bioecological Model of Human Development, to enhance understanding during the analysis and to identify key themes. Distinctions between home and school support were made, contributing to a deeper understanding of the data. This approach effectively highlighted common elements across each of the transcriptions.

4.5.2. Data Analysis Process Using QDA Miner

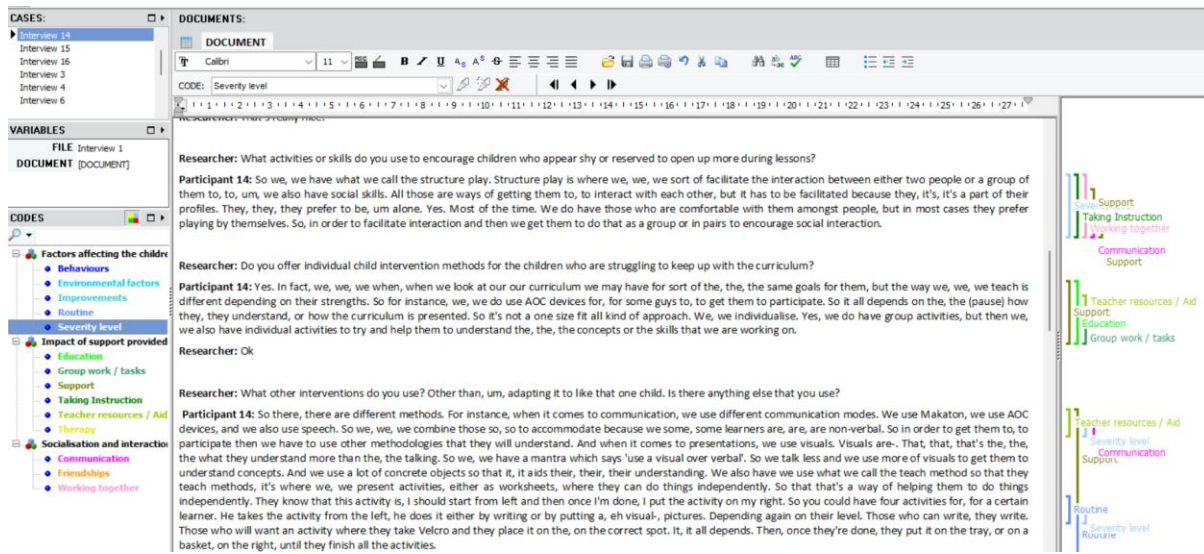
Once the codes were developed from the transcribed data, the researcher proceeded to utilise QDA Miner to conduct a thorough analysis of the transcriptions. QDA Miner is a specialised software program designed specifically for qualitative data analysis, making it particularly effective for examining text files, such as those obtained from interviews. This tool aids researchers in systematically categorising codes, allowing for the identification of patterns and themes within each set of data.

Furthermore, QDA Miner not only facilitates the organisation of codes but also provides quantitative insights by calculating the frequency of each identified theme. This feature ensures that researchers can verify the accuracy of their findings and understand the importance of various themes across the data. Through this process, the researcher can obtain meaningful interpretations from their qualitative data, enhancing the overall consistency of the thematic analysis.

To code data using QDA Miner, the researcher used MS Word for each of the transcripts. These were all added to the program so that the final data analysis would be done on the whole set of data instead of on an individual level. From here, the themes and sub-themes identified need to be added to the program under 'Codes'. Each sub-theme will fall under the main category, so the researcher colour-coded each theme so it could be easily identified in the analysis process. From here, the themes and sub-themes will then appear on the left side of the document.

Each theme identified is then highlighted and the appropriate sub-theme is selected by double-clicking the relevant code. The codes will then appear on the right side of the document. The below figure has been added for reference.

Figure 4.5.2.1. QDA Miner Analysis



Once the analysis is complete, the data can be tabulated or exported into MS Excel. The frequency of each theme and sub-theme is calculated automatically by the program to ensure validity and reliability is maintained throughout the analysis process.

It is also important to address challenges that were encountered during the data analysis process while utilising QDA Miner. This program had been utilised by the researcher for previous data analysis; however, coding and categorising are unique to each dataset. This requires careful attention to the current set of data. Although QDA Miner efficiently organised and stored codes, the thematic analysis remained dependent on the researcher's interpretation, highlighting the potential for subjectivity and bias in coding decisions.

Ensuring consistency across multiple documents and participant responses was also challenging, particularly when merging similar codes or maintaining clear code hierarchies. Additionally, while QDA Miner supported text-based analysis effectively, it could not capture non-verbal cues or contextual nuances that are often significant in qualitative research. These factors, combined with the highly researcher-dependent nature of coding, indicated that exact

replication of the study could be difficult without detailed documentation of the coding process. Acknowledging these challenges reinforced the importance of maintaining trustworthiness, credibility, and transparency throughout the analysis.

4.6. TRUSTWORTHINESS

Trustworthiness in qualitative research refers to the degree to which research findings can be relied upon. Korstjens and Moser (2018) outline four criteria that establish trustworthiness: credibility, transferability, dependability, and confirmability. It is essential for the research to be viewed as legitimate, supported by sufficient evidence (Finlay, 2020; Nowell et al., 2017).

Credibility pertains to the accuracy with which the researcher analyses the collected data (Korstjens & Moser, 2018). The interpretations drawn from interview responses must accurately reflect the participants' views. Conducting a peer review can enhance credibility by allowing the researcher to revisit any misinterpretations (Nowell et al., 2017). Additionally, building rapport with respondents, possibly by conducting interviews at their workplace, helps the researcher gain deeper insights into their perspectives. This was established by the researcher during the initial meeting with potential participants. The researcher provided an explanation of the research topic, its purpose, the methods of data collection, and what participants' involvement would entail. The gathered data was then shared with the researcher's supervisor for review to ensure accurate interpretation during the thematic analysis.

Transferability refers to the applicability of research findings to similar contexts in other studies (Korstjens & Moser, 2018). As noted by Nowell et al. (2017), researchers should provide thick descriptions that facilitate the transfer of findings to other settings. For instance, Table 5.2.1.

Emerging Themes and Sub-themes in the Data Collection section illustrates how emerging themes aligned with the research objectives.

Dependability relates to the consistency and repeatability of the findings. The research process should be logical, traceable, and well-documented, as evidenced in Table 5.2.1. of the Data Collection section as well as the sample of the transcribed data (Annexure G) (Nowell et al., 2017). Utilising QDA Miner Lite for data analysis minimises human error, thereby enhancing dependability through more accurate results. Confirmability is established when findings are credible, transferable, and dependable (Nowell et al., 2017), and it is indicated by alignment between the interpretations, participant responses, and existing literature. The findings are supported by existing literature as well as the chosen theory where the researcher is able to establish a connection between the responses, analysed data, and the literature review.

To maintain trustworthiness and reliability in this research study, the researcher must ensure that all participants clearly understand their roles and that the sample accurately represents the educator population (APA, 2017). Study parameters should be mutually exclusive, allowing only those who fit the defined population to participate (APA, 2017). To avoid bias, all educators should have equal opportunities to participate, with exclusions based solely on population parameters, which will be determined through screening questions at the start of the data collection process. This was established through the use of mutually exclusive screen questions as well as by sharing the information sheet (Annexure D) with all potential participants. This allowed for only educators who met the research parameters to have an opportunity to participate and ensuring they understood what their involvement would entail.

To ensure objectivity, the researcher should employ triangulation (APA, 2017), which involves cross-referencing information from various reliable sources such as journal articles, government publications, and relevant news articles. All information included in the research must be relevant, factual, and accurate to maintain validity. The researcher ensured that all information gathered was from reputable sources and where applicable, only more recent journal articles and publications were utilised. Where sources were older, the researcher ensured that a later publication that cited the same source was used. This ensured that all information was cross-referenced and factually correct in relation to this research report.

Bias can be minimised by preparing interview questions in advance to ensure consistency across participants (APA, 2017). Having a colleague or supervisor review the questions can help confirm their clarity and relevance. Given that the researcher has family members who are educators and a family member with ASD, it's important to remain aware of potential biases throughout the study. This awareness has been supported by consulting with the researcher's supervisor to ensure that all reporting is based solely on the analysed data. The interview questions (Annexure F) were based off of the research question as well as the research objectives. These questions were reviewed by the researcher's supervisor and any questions that appeared vague were removed or altered accordingly.

4.7. ETHICAL CONSIDERATIONS

Non-maleficence is crucial as it emphasises the need to prioritise participants' well-being throughout the data collection process (Austin et al., 2018; Finlay, 2020). Questions were thoughtfully designed by the researcher to ensure that participants were not exposed to harm or distress during interviews. In line with the ethical guidelines outlined in the Health Professions Council of South Africa (HPCSA) Form 223 of 2006 (Health Professions Council

of South Africa, 2006), the researcher ensured that all procedures adhered to professional standards for confidentiality, informed consent, and respectful treatment of participants. The findings from this research study will be securely stored for future use and presented online as a research report. Additionally, the results may be disseminated through journal publications and conference presentations, with all identifying information anonymised to protect participant privacy. By following these measures, the researcher sought to uphold ethical integrity, promote trustworthiness, and safeguard the rights and welfare of all participants involved in the study.

4.7.1. Ethical Clearance

Ethical clearance was first secured from the University of Witwatersrand HREC where the researcher had to provide a copy of the proposal and supporting permission documentation to obtain clearance, Protocol Number H24/01/01 (Annexure A). Following that, permission was obtained from the Gauteng Department of Education (GDE – Annexure B) and from the principals of all participating schools. Once these approvals were in place, the researcher was allowed to initiate the data collection process by arranging interviews with educators from each school. The principals or head of the school was asked to write a letter and place it on a school letterhead to ensure permission was obtained (Annexure C). Once this letter was received, the researcher then had a phone call, or Teams call with the principal to arrange the best possible day to come to the school and speak with the educators.

4.7.2. Informed Consent

All participants were provided with a copy of the Participant Information Sheet (Annexure D) to read and keep, which explained what their participation would involve. They were also given

two documents to sign, granting their consent to participate (Annexure E) and be recorded (Annexure F). Informed consent was important because participants needed to be informed about the study and given the option to participate (Corey et al., 2017). The researcher explained the documentation to each participant and had them sign a consent form before the interview process. This ensured that participants understood the study and had the option to decline if they felt uncomfortable.

4.7.3. Voluntary Participation

The study asked educators to reflect on their observations of the social skills of children diagnosed with ASD, and it was expected that the study would cause no harm to the participants. Additionally, respondents had the option to withdraw from the study at any time or to skip specific questions. Their participation was voluntary, and they had the opportunity to remove themselves at any stage.

4.7.4. Confidentiality and Anonymity

Given that the data was collected through semi-structured interviews, anonymity could not be guaranteed during data generation. However, both anonymity and confidentiality of the participants were ensured in the write-up of the research report, where their names were omitted from all documents, and their answers were stored in a SharePoint folder that required approved access rights. Each participant was provided with a confidentiality agreement to sign, which was also signed by the researcher (Annexure E). This enhanced the trustworthiness of the research report by indicating to all participants that their responses would only be accessible to the researcher and their supervisor.

4.7.5. Distress Protocols

In qualitative research, it is essential to safeguard the well-being of participants by ensuring that they are not harmed or experience psychological or emotional distress by implementing distress protocols (Brown et al., 2021; Finlay, 2020). These protocols begin with a thorough informed consent process, where participants are fully informed about the potential risks and the nature of the research. According to Jones et al. (2022) researchers are responsible for closely monitoring participants for any signs of distress and must be prepared to pause or end an interview if needed. In order to support participants, the researcher should also provide access to mental health resources, such as counselling services or crisis helplines, and ensure that participants know they can withdraw at any time without consequence. This step was followed during the interview process with all educators. All participants were informed that their involvement was voluntary, they could terminate the interview at any time if they felt distress, and that the interview could be paused if needed. All educators were monitored during the interviews to ensure they were not harmed or experience psychological or emotional distress.

4.7.6. Data Storage

Data storage in qualitative research is crucial for safeguarding the confidentiality, security, and integrity of participant information (Roberts et al., 2018). Researchers must ensure that all data collected through interviews, notes from the field, and transcriptions, are stored securely by using encryption and password-protected files. Backups should be regularly performed to prevent any loss of data (Roberts et al., 2018). These backups were performed by the researcher by utilising an external hard-drive, memory stick and emailing MS Word files to the researcher's alternative email address. This ensures that all files are safely stored and easily

accessible to the researcher should the main research report be lost. All notes and external storage devices are locked in the researcher's safe in their office. The digital files are stored in a secure folder that has been password protected on both the researcher's personal computer and OneDrive. Anonymising data where possible also helps to protect the identities of the participants (Roberts et al., 2018). All names of participants and the selected schools have been omitted from all digital files and names have been replaced with a unique code. Ethical guidelines for data retention must be observed, typically requiring data to be stored for at least five years before being securely disposed of (Roberts et al., 2018). The data from this research report will be kept for 5 years before being securely destroyed.

4.7.7. Results Dissemination

The results of this research will be disseminated through a range of channels to ensure they reach a broad audience and have a significant impact. These channels will include submission to academic journals and sharing through online platforms. Additionally, the research report will be provided to the researcher's supervisor and relevant institutional bodies for further review. The findings will also be shared with the participants, who will receive feedback to ensure transparency and acknowledgement of their contributions to the study. By employing these diverse dissemination strategies, the researcher aims to effectively share the findings with both academic and professional communities.

4.8. CHAPTER CONCLUSIONS

In conclusion, this chapter has provided a comprehensive overview of the research methodology employed in this study, detailing the rationale behind the chosen approach. Focusing on educators' perspectives of children with ASD and their interactions within the

school environment, this research addresses a crucial aspect of educational inquiry. The selected methodology is well-suited to capturing these interactions' complex, nuanced nature, ensuring that participants' subjective experiences are authentically represented.

The alignment between the research paradigm and design strengthens the study's objectives, enabling a deeper exploration of the intricate dynamics within educational settings. The following sections will critically discuss the reasoning behind this methodological choice, highlighting how it contributes to a better understanding of ASD and supports the development of inclusive practices within schools. By engaging with relevant theoretical frameworks and justifying the data collection methods, this study aims to make a meaningful contribution to the ongoing discourse on inclusive education and the support of children with ASD.

CHAPTER 5

FINDINGS

5.1. INTRODUCTION

This chapter will provide an in-depth analysis and discussion of the data collected through semi-structured one-on-one interviews with participants. The aim was to explore their experiences with children on the autism spectrum and to examine how these experiences influence interactions within the school environment. Through semi-structured interviews, the research captures in-depth qualitative insights, allowing the researcher to enhance their understanding of how children with ASD navigated social interactions and established relationships within their school environment.

The discussion will be organised to link the findings clearly to the theoretical framework guiding the study. This structure ensures a clear distinction between the raw data and the theoretical concepts that inform its interpretation. By analysing the educators' responses, connections will be made to existing research on ASD, helping to deepen our understanding of the issues within educational settings.

The chapter will also consider how the findings contribute to the broader discussions on inclusive education and the support systems for children with ASD. It will emphasise the importance of educators' perspectives in shaping effective interventions and fostering an inclusive school atmosphere. By placing the findings within the literature review and theoretical framework context, this chapter aims to provide a comprehensive understanding of the participants' views and their implications for educational practice, policy, and future research.

5.2. EMERGING THEMES

The raw data collected were transcribed and later analysed by the researcher using MS Word. This analysis was further refined through collaboration with the researcher's supervisor, allowing for the identification of recurring themes within the data. Following this thorough examination, three primary themes emerged, with corresponding sub-themes that were categorised accordingly. Once the key themes were established and codes generated, the researcher made use of QDA Miner to assist in the thematic analysis and to calculate the frequency of each identified theme. The three core themes and their associated sub-themes are presented in the table below.

Table 5.2.1. Emerging Themes and Sub-themes

MAIN THEMES	SUB-THEMES
Theme 1: Factors affecting the children's abilities/capabilities.	• Behaviours • Environmental factors • Improvements • Routine • Severity level
Theme 2: Impact of support provided by educators	• Education • Group work/tasks. • Support • Taking Instruction • Educator resources / Aid • Therapy

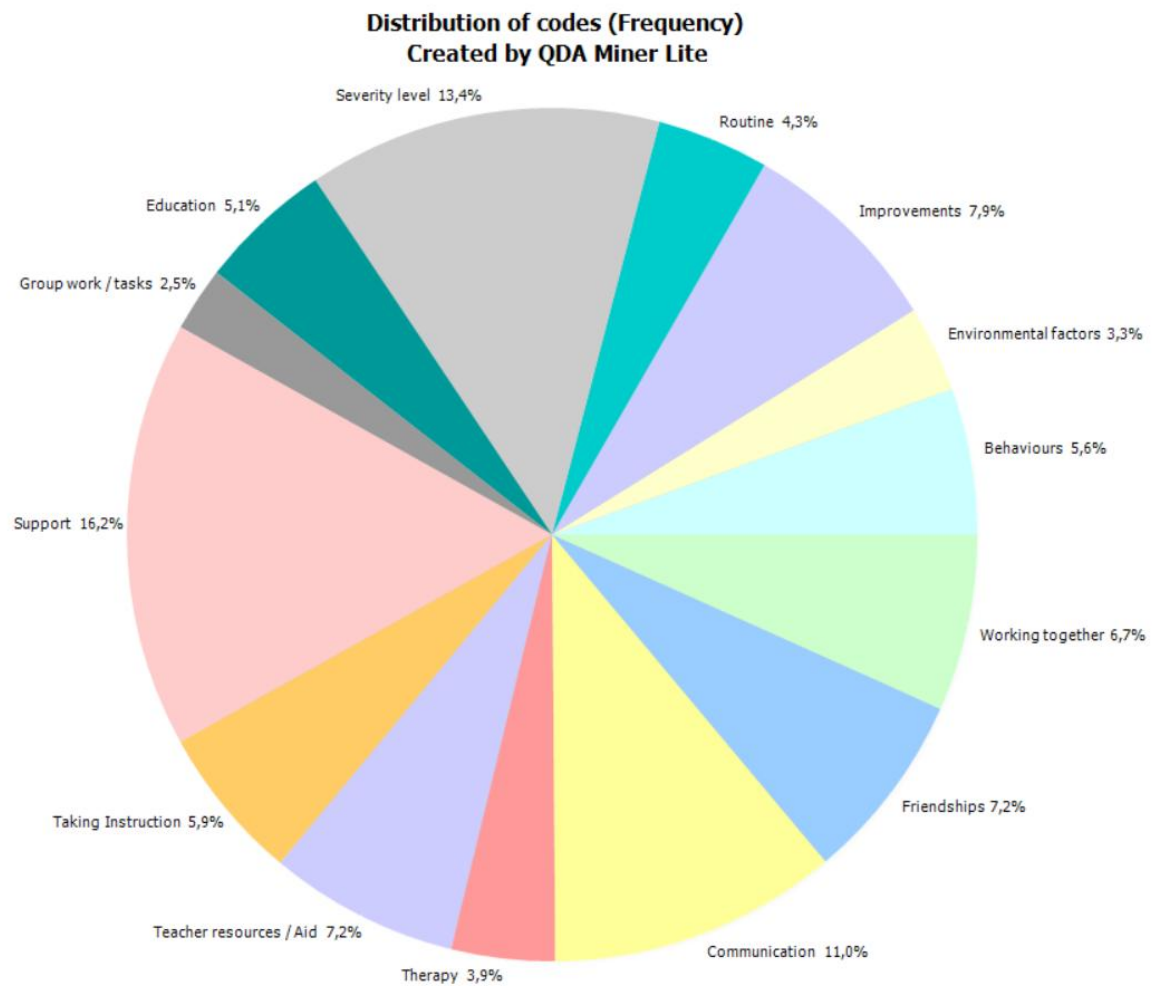
Theme 3: Socialisation and interactions.	• Communication • Friendships • Working together
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Each central theme was colour-coded so the researcher could identify the categories in QDA Miner when highlighting the transcriptions.

5.3. QDA MINER SUMMARY OF FINDINGS

QDA Miner was used to determine the frequency of each identified theme and sub-theme. As noted earlier, each theme and sub-theme was colour-coded for easy identification during the analysis. The data was calculated by the program and displayed in a pie chart to illustrate the frequency of each sub-theme. This has been illustrated in *Figure 5.3.1. The QDA Miner Summary of Themes and Sub-themes* is below.

Figure 5.3.1. QDA Miner Frequency of Sub-themes



The figure above clearly presents the frequency of each theme, which will be referred to in the following sections.

5.4. DISCUSSION OF THEMES IDENTIFIED

5.4.1. Theme 1: Factors affecting the children's abilities/capabilities.

This theme examined the factors that either support or hinder a child in their school environment. As mentioned earlier, children with ASD face challenges in several key areas, including repetitive behaviours, emotional and cognitive processing, verbal and non-verbal communication, social interaction, adaptability to change, and sensory processing (APA, 2013). These difficulties can impact their ability to express emotions, communicate effectively with peers and educators, and adjust to changes in routine; all of which affect their learning experience (Adams, 2024).

Sub-theme: Behaviours

Behavioural challenges are common in children with ASD, and understanding the nature of these behaviours is crucial for providing effective support. These challenges may involve repetitive actions, difficulties with social interaction, communication, and emotional regulation (APA, 2013). When it comes to understanding these behaviours, it's important to consider the child's support needs as well as their potential triggers. Understanding the underlying reasons for this behaviour allows the child to be assisted and accommodated within their school environment (Horner & Sugai, 2015).

When speaking to educators at a school that caters for various support levels, ranging from medium to low support needs, one of the participants from a FSS mentioned how the children who are non-verbal tend to act out by throwing tantrums or becoming restless when they are unable to convey their thoughts or feelings:

SE P15: But we struggle with those who are nonverbal who can't explain what their weekend was like. Also, the iPad that we use for communication will be limited to the grid that you created. So, it doesn't have all the vocabulary. And then, my experience is that those are the ones who throw tantrums

Another participant from a SS school that caters for medium to high support learners also mentioned that they don't push the children to be part of the activities. This idea is supported by Ben-Sasson et al. (2009), who state that each child responds differently to social situations, and the child will become overwhelmed by forcing their engagement. This approach taken by a teacher at a SS school recognised that the child needed time, and the classroom environment may be too intense for them to comfortably join a group activity:

SC P07: ... We don't force kids, because when you force them, they throw a tantrum. Just give them space, and give them an allowance. Give them time. ... Eventually, I think it was like, in a month. Three weeks. It took him weeks. He joined the class, and he was joining us.

A participant who primarily works with low support needs at a FSS mentioned that some learners can become unruly and disturb the classroom. These individuals become violent and tend to throw their devices out of frustration.

SE P15: There are learners who, who continually disturb others ... But that group sessions get disturbed by the different, behavioural tendency of these learners. Since some are violent, some throw things. And they go throw things, and either they'll, either there will be damage to devices or expose dangers to other learners.

Sub-theme: Environmental factors

Children with autism spectrum disorder (ASD) frequently experience heightened sensory sensitivity, which can lead to sensory overload. What is perceived as a typical or "normal" environment for neurotypical children can often be overwhelming and distressing for those with ASD. In this regard, the theme of environmental factors emerged with an understanding that these impact the development of children with ASD. The impact of sensory overload is an important consideration in supporting children with ASD, as it directly influences their emotional regulation and overall well-being.

When asked to explain how a typical day would be in their classroom, an educator from a FSS mentioned how the weather is a significant factor when it comes to behaviour:

SA P01: Chaos. It all depends on the day. The weather as well. The weather is a main effect for a lot of the kids. Especially the autistic kids. So, with weather like this, a lot of them act out when it's overcast. Um, change of seasons also make a massive impact with our autistic kids. Ah, um, a lot of them stem with movement.

Another FSS educator expressed the same concerns when asked about issues they experience in their classroom.

SE P15: My biggest problem is the, the different levels that you have in class.... Let, let us say the, the one learner was restless, noisy. I've got those who are non-verbal, noisy, and they still didn't want to listen. So, you don't want to take the noisy one out. She still wants to get them as a group, and the other learners get annoyed by that noise. You

want to teach these learners who want noisy to be tolerant. That's the biggest challenge I have to say. To what extent would they tolerate this?

The educators' accounts reflect the importance of considering environmental factors when supporting children with ASD in a classroom setting.

Sub-theme: Improvements

In recent years, there has been a greater understanding of ASD, including a clearer recognition of the support and intervention methods needed, along with improved education strategies, early diagnosis, and increased awareness (Scattone et al., 2006). Although ASD is a lifelong condition, with the right support and interventions in place, many children with ASD can make significant strides in their social skills, communication, and alter behaviours that are more acceptable in social settings. Within this theme, the educators identified the interventions and support mechanisms that were successful and what improvements had been identified. An educator at a SS school that specifically caters for high support needs for children with ASD and various other physical, behavioural and cognitive abilities was interviewed and they mentioned how much of an impact their school and therapy had on one of their children:

SC P07: I wasn't aware that I'm actually changing this child's life. And then when they came, they showed me pictures because I haven't seen them before. And then they had like reports, and then they showed me that when she came here, she was like this. And now, look at this (shows pictures).

It is crucial to consider the level of support each child requires because this will significantly affect their progress and development (Morrison et al., 2017). Noticeable improvements in

social interactions, verbal communication and behavioural interactions were detected by several educators from each of the chosen schools. Some of the children who first started at these schools had limited to no verbal capabilities while others lacked the ability to interact or initiate a conversation with their peers. When asked if improvements had been noticed when comparing their progress from the beginning of the year up until now, several educators mentioned what improvements had been noticed:

SE P14: Definitely. You, you, when you do get learners, whose behaviours are so, so difficult, and once you start, implementing some strategies with them, you see a change in behaviour. You see an improvement in their interaction. You see an improvement in their social interaction. So, definitely the interventions it might take time for some really to, to improve. And it, the, the, the improvement at times is not, at times, especially when we compare with the neurotypicals, you know with neurotypicals, at times the improvement is so big, and you can see it. Within a week, within a, a month, but with our guys, it might take months. And those small steps and those small improvements are worthy to acknowledge.

Another educator from a FSS described a strategy where, at the beginning of the school year, they introduced a set schedule for the children and gradually changed or removed elements to help them develop cognitive skills and independence. Over time, the children showed significant improvement. Initially, the children would simply copy the schedule, but by the end of the year, many children could independently recognise the changes for each day, understand the sequence of activities, and even correct the educator if there was a mistake. This reflected progress in their cognitive understanding and ability to communicate with their educator. These examples emphasise the importance of adapting interventions to meet the specific needs of

children with ASD, considering both the proximal processes and the child's individual characteristics (Morrison et al., 2017). This educator used this technique to assess which children were stronger in order to pair them for group tasks and activities:

SE P16: Definitely, definitely much improvement. Like the schedules I was talking about. So, I will do the main one where they need to look and see, oh OK, this is what's happened today and they copy it, and they make their own on their own space. And then in the beginning they needed so much to look at that. And then slowly, I would mix it up just to see if it's just copying or they actually know today's Wednesday, and this is what's supposed to happen. In the beginning, it was just copying and then even copying the mistake as well. Now they will tell you, "No, no, no. It's Wednesday. It's first swimming, then playground. Teacher, you've got it wrong. Let's fix that". So that's the improvement. They actually know what's supposed to happen. Some of them don't look at my example at all anymore, they know it's a Tuesday. They know what's supposed to happen. Put it up themselves. That's the improvement here.

With the right support, children can make gradual but meaningful progress in social and cognitive skills, which are vital for enhancing their quality of life and social inclusion (Morrison et al., 2017). This theme overlaps with the next, "Routine," as these strategies also impact how children understand and interpret lesson plans, showing progress in their ability to adapt and communicate within the school setting.

Sub-theme: Routine

Routine is considered to be a critical aspect for individuals with ASD. It ensures comfort and reduces anxiety because they are able to predict the next steps and navigate through their environment without becoming overwhelmed (Gordon et al., 2020).

Within an educational setting, having visual aids, such as schedules and timers, can assist with establishing a routine. The children will be able to interpret the schedule to determine the expected activities and tasks, which will reduce their anxiety, confusion and stress when transitioning from one activity to another (Kern et al., 2013). Routines also aid in the development of organisational skills.

When speaking with educators at a school that caters to SEN and accommodates children with middle to low support needs, they mentioned how having a routine was crucial in order to maintain behaviour and reduce levels of stress and anxiety. Minor changes to a routine for medium support level children can disrupt their whole day:

SA P01: So, it's minor, little things that trigger them and set them off for the day. Because autistic kids are extremely routine based [...]. Some days, there could be no challenges and it's a smooth sailing day. Other days, it's. One didn't-, mom didn't pack the right snack or, dad dropped instead of mom, and it's upset their routine. It's little things that change on the day.

However, while interviewing an educator from one of the selected SS schools, they mentioned how they deliberately avoid sticking to a routine. This is because one cannot expect to maintain a controlled environment that is rigidly structured and free from change. By guiding children

with ASD from a young age, it helps them adapt more easily when there is an alteration to their routine:

SD P13: Everyone likes routine. No one likes to change. That is why it's important to test these children and not always keep to a routine. Nothing ever goes according to plan and if you shelter these children, how do we expect them to cope?

Sub-theme: Severity level

The impact of severity level on the support requirements for children diagnosed with ASD emerged as a theme across all the schools. One of the biggest challenges faced by the teachers is how to adequately accommodate the support level needs of each learner while adhering to their educational needs. As noted by one of the educators, not all children should be taught or treated the same. Each child will respond differently, and they need to constantly adapt to each child's way of responding:

SE P16: Um, I could say that, because they're all on different levels of the spectrum, it's not a one-size-fits-all. [...] So, you must quickly be ready for that switch. What works with this one, won't work for the next. And as the day is going, you need to be on your toes in that sense. [...]. Even the way you talk, some need that extra firmness. Some just by your expression, they can read and see. Some, you have to gently remind. So, I think that's the biggest challenge. Having eight kids, who are all on different levels [...]. That's another challenge where you have one with grade R level in maths, but, um, grade one level in literacy.

One of the SEN schools chosen that mostly accommodates medium support level needs mentioned how one of the children in their class communicates his needs:

SB P06: Instead of crying, he will point what he wants. Or else, if he wants you, he will take what he wants and come to you and show you 'I need this'. Even though he's not going to say the words but like you can see with the eyesight 'I need this'.

Changes to the weather, certain textures and light also need to be considered. One school mentioned how changes in the environment and sensory sensitivity impacts their lesson plan and that the children disengage:

SD P11: Sometimes not underst-, not knowing if what you've planned will translate to the child. If they will receive it well. Ja. Because you could plan something and then, sense, like sensory-wise, it just does not go, click with the kids.

One of the SSs was visited to understand how children with high support needs are accommodated within their learning environment. The researcher spoke with the educators and learned how the children are grouped according to their support needs. This school has four groups with various support needs and requirements, with three carers per group. Within each group, there are learners with various support needs from physical disabilities to learning disabilities. Of which, there are also children with ASD. The researcher spoke to a participant who assists with the overall care of all four groups, who explained how each group has been categorised:

SC P07: Ja. So, what we do, we have four groups here. Let me just write it down. We have four groups here. We have Leaves, we have Crickets, and we have Oaks, and we

have, uh, Acorns. Acorns is divided into two, because it's one of our, uh, biggest groups. And these groups are actually divided in, on how, uh, their capabilities, what they can do, and how they, um, manage things. ... The, um (clears throat), autistic kids that are non-verbal, others are verbal, you know? And there are the other ones that are more capable of doing things independently, and there are others that really might need your help, and there's others that really need your help. And, uh, constantly remind them of, uh, what to do (clears throat).

It was noted that the severity level of a child ASD directly affects the level of support required in the classroom. Teachers must adapt their approaches to meet each child's individual needs, recognising that no two children respond the same way. Sensory sensitivities, such as changes in weather or lighting, can impact engagement and require careful consideration. Schools that cater to varying levels of support, such as those with multiple groups for different needs, are able to provide more targeted care. By tailoring support based on severity, educators can better help children with ASD and other disabilities thrive in a supportive learning environment.

5.4.2. Theme 2: Impact of support provided by educators

This theme looked at each school and how the child was supported based on their severity level/support needs. As discussed, ordinary schools, FSS, and SS schools all have to adhere to the National Education Policy (1995), the South African Schools Act (1996) as well as the Education White Paper 6 to ensure education is provided to all children in South Africa (Kubayi, 2010; DoE, 2007). As mentioned previously, Education White Paper 6 aimed to tackle issues regarding inclusive education by creating an environment where all children have access to training and support, regardless of their educational requirements (DoE, 2014). Each school

accommodates the children's needs and support requirements through the use of AAC devices and teaching assistants where available.

Sub-theme: Education

In terms of education, the Department of Basic Education in South Africa sets the curriculum and policies for the standards of education, which include the National Curriculum Statement (NCS) and Curriculum Assessment Policy Statements (CAPS) (South African Government, 2020). All of the schools that participated in this research report mentioned using the following in terms of education: Makaton, PECS Cards, CAPS, and Montessori.

One of the schools mentions how they integrate PECS Cards as well as use Makaton in their classrooms to support communication. PECS Cards are similar to the Makaton cards except it is an image with a word without the British Sign Language element. They have the cards at eye level around the classroom so that the children who have limited verbal capabilities are able to convey their needs:

SD P11: And I've also received some Makaton training which also helps with communications. Like a little aid for us in our classes. And PECS cards that we have on our lanyards. Even within the classroom, we have, um, like toilet signs. Um, if they don't have the words for it, they might point to what they want. Things are usually accessible. They're like, if you go into the classroom, everything is where they might be able to, show us.

This teaching method is suitable for children with SEN because it is adaptable to the child, and they can explore the material at their own pace. By doing this, a child with ASD is not pressured

to learn and it reduces their anxiety in the classroom. It respects the child's individuality by promoting an independence and a hands-on learning experience. One of the SEN schools mentioned how they follow the CAPS curriculum but also Montessori Method for those who need it because it can be adapted to the individual needs of each child:

SA P01: So, we use, we work off the CAPS curriculum, but we do a lot of hands-on approach. Um, sensory integration. We use the Montessori method for those who need it. Because certain kids adapt to it. But we literally adapt to the child. The child doesn't adapt to us. We figure out the best way for them to learn and then we go from there.

With one of the SS schools, an educator explained how they work with the child to ensure they are comfortable and concentrating. In one of the examples given, a medium support level child with limited verbal capabilities was getting frustrated and disengaged from the material. She explained how they left the child for a bit to find something of interest before approaching:

SA P03: Like, if I, like I'm doing a lesson, like, I, uh, see this, eh, child is not interested in, at what we are doing as a class [...], I just try to, because we working with Montessori, we just let the child go and choose whatever he likes or she likes.

The educational approaches and resources implemented in South African schools for children with SEN demonstrates a strong commitment to inclusivity and individualised learning. The Department of Basic Education's curriculum serves as the framework for education across the country. The schools involved in this research project implement additional strategies that are designed to meet the diverse needs of each child. In the end, these educational methods, alongside the CAPS framework, work together to create a more inclusive and personalised

learning experience for children with SEN to reach their full potential while promoting their independence, communication skills, and overall development.

Sub-theme: Group work / tasks

Group work in schools provides children with an opportunity to work together, develop social skills, and participate in problem-solving activities (Santrock, 2011). However, for children with ASD, group work and activities may create significant challenges due to difficulties with social interactions, communication, and their general understanding of social cues. These challenges often lead to feelings of isolation or becoming overwhelmed in a group setting. This makes it difficult for them to engage and interact when faced with these group activities (Santrock, 2011). These negative experiences can be combatted with supportive interventions that are structured and promote inclusion regardless of the child's support level requirements.

Due to ASD children struggling with social settings, this educator from one of the FSS schools assists by coming up with a smart system that encourages communication, support and socialisation through group work:

SE P16: So, most of the times we come up with games. So that they get to interact. Like Zingo, so that you've got that, OK, it's this one's turn, after that, it's your turn and then we're encouraging them to say it. [...] And then it sort of builds that interaction because some of, their struggle is that, to initiate. But if you give them stuff like games, stuff like, OK guys, you two in pairs, can you pack away? It encourages them then to start talking to each other.

Through this method, the children are encouraged to work together by creating an opportunity to work together. A simple task of tidying up initiates an interaction where the children are required to communicate to complete the task. These small but effective strategies not only support social development but also help children with ASD feel more confident and included in group settings, promoting their active participation in school life.

One of the other participants, who has both medium and low support level needs in his classroom, mentioned how he creates opportunities for interactions with their peers. Either by asking a child to assist another or by playing games together on one of the school computers:

SE P15: With their peers. Like, we, we engage them in conversation, [...]. Even those who are non-verbal, you know, use their device, like, an iPad to say hello, or to shake hands, or high five. And that is one way. With games, with games that they can play on their own, they've got games that they can play in pairs. There are group games ... Some games allow them to play in twos. Some of the games are like, there's a team A, team B, and then, one learner will be putting in the correct answers they call out. It's a co-operative process [...]. All those things, I think, they encourage, but there's still, there are some who wander, wander away, and find them still there alone.

By offering a combination of structured support and inclusive activities, schools can better enable children with ASD to navigate group work and overcome the challenges that arise in social settings. This approach is essential in creating a learning environment where every child, regardless of their support needs, can be included.

Sub-theme: Support

Support for children with SEN will vary depending on their physical and educational need requirements. According to White et al. (2007), individuals with ASD experience both direct and indirect implications due to challenges in social interaction. These social difficulties impact speech, language capabilities, and the ability to engage in interpersonal relationships. Due to this, they will require support from parents, carers and educators to navigate social interactions.

Peer support appeared to be the most common element of support provided by educators among the various selected schools. Pairing those with limited verbal capabilities or those who struggle with engagement are paired with a child who appears more social or can initiate the interaction.

SA P03: To share the toys. So, they can communicate with each other. Ja. I think that is important. Like even, like he-. Like, when I'm teaching them, I put them into groups. The better one and ... those who move slowly, or can't talk properly I put, eh. I pair them.

SE P16: If I see that one is stronger, I pair them with someone who's weaker so that they sort of guide them. So now it's like a peer guidance, you know.

This approach allows both children to improve their social skills by creating a foundation for the engagement to take place. Those who have limited verbal capabilities are able to use Makaton to convey their needs and the one who is more verbal can learn how to interact and reciprocate.

Each child with SEN has an individualised education program/plan, or IEP, that has been tailored to their educational needs. An IEP is an education plan that is developed to outline support needs, an action plan for assistance, and an end goal for each child to achieve (Belsky, 2024).

SE P16: So, we've got like an IEP for every child, an individualised education plan.... So, where a child, some are very confident in let's say, approaching another kid or getting toys. Another child needs your support or your, "no, it's OK. It's yours. Go ahead". So, in the beginning, we give a lot of it. [...] Then we slowly take it away. [...]. And then, if we were giving three instructions or support and three steps, we slow down to two, slow down to one, and then slow down to none. ...But we give it as per, as per child and what they need.

By having access to each child's IEP, educators are able to monitor their progress, implement necessary support mechanisms, and track which children require additional therapy. Each child that is receiving therapy within the school or from an external therapist will be mentioned in their IEP. This ensures that the children are supported, and additional support can be provided where necessary.

Involving the parents to determine what areas need to be addressed is another aspect of support that was mentioned. Due to the children going home in the afternoons, behavioural changes, additional support requirements, and improvements can be shared with the school. Should one of the educators notice an area of concern, they have an opportunity to convey these concerns with the parents.

SE P15: Then we sit and make feedback to parents. What they're seeing at the home and what we're seeing at the school. Trying to reconcile the kids. We have noticed differences. We notice improvements and parents; they got knowledge in that as well. In terms of, could be one way communication, it could be two-way, it could be well, we also combine Makaton, using sign language. So, we've tried to involve parents into those strategies that we use. And we get feedback from parents who are going to say they can see their children doing something different.

Children with ASD often struggle with social interactions, which affects their speech and relationships, and require help from parents, carers, and educators. Peer support was mentioned as a means to assist children with limited verbal skills. They are paired with more social peers to improve interaction and engagement. Each child also has an IEP, which helps educators track progress and provide the right support.

Sub-theme: Taking Instruction

Children with ASD often struggle to interpret social cues such as facial expressions, body language, and changes in tone of voice (APA, 2013). They may also face challenges with cognitive processing, making it harder for them to follow instructions. As a result, they require extra support to fully understand tasks and expectations (Gordon et al., 2020). Educators must therefore adapt their teaching methods to meet the individual needs of each child, recognising that a one-size-fits-all approach is not effective. Some children may need more assistance to interpret and respond to instructions.

Additionally, individuals with ASD tend to experience sensory stimuli (like sounds, smells, lights, and touch) more intensely than neurotypical children (Ben-Sasson et al., 2009; Tomchek

et al., 2007). This heightened sensitivity can impact how they engage with their learning environment. A teacher working with children who have medium support needs highlighted the importance of creating a supportive environment and exercising patience. Repeating instructions multiple times ensures these children can fully grasp the task at hand.

SB P04: Even though, um, our kids forget sometimes. You know. Because normally we do the same thing, like, many times. [...] Um, I've, I've noticed that actually the one-on-one, simple explanation. Like, as in patience also works.

Basic life skills such as greetings and engaging in conversations are considered difficult for a child with ASD. Even those who are considered to have low support needs are taught proper social skills and encouraged to share, apologise and greet each other. This educator explained that they have to encourage positive behaviours because it is not a skill that is innate to these children with ASD:

SE P14: So, for, for, on a daily basis, we, we make sure that we get them to talk to each other. We, we ask them to greet each other. [...] So, if, for instance, they want something from there, their classmate, we encourage them not just to grab but to, to, to, to ask. Even in terms of, ah, politeness. So, when they ask for something and they get it, we encourage them, for instance, to say thank you. When they do something wrong to someone else, we ask them to say sorry. So, it's something that we have to teach them. Otherwise, it's, it's not a given that they, they will be able to do that.

Those who are considered to have high support needs struggle with taking instruction and prefer isolation. Even when given a task or activity, the child may disengage and wander off on their own instead of partaking in the activity:

SC P07: Ja, it's a challenge, and they don't, they don't, not specifically take instruction, but they want to do things in their own way, time, and their own pace.

Children with ASD struggle to interpret social cues and follow instructions, requiring tailored support from educators (APA, 2013; Gordon et al., 2020). They also have heightened sensory sensitivities that can affect their engagement (Ben-Sasson et al., 2009; Tomchek et al., 2007). Educators need to adapt their methods, repeat instructions, and provide a supportive environment to enhance the children's learning abilities. Basic social skills, such as greetings and sharing, need explicit teaching, as these are not innate for children with ASD. Those with high support needs may disengage or prefer isolation due to difficulties in interpreting social cues.

Sub-theme: Educator resources / Aid

In all of the schools that were part of the research study, the educators and assistants received training in various courses to ensure they can adequately meet the needs of the children on their care. These training courses are either provided over a weekend or just before the term commences to ensure they do not interfere with the lesson plans. All of the educators mentioned either being sent for course such as Makaton, Montessori Method training, fire control, first aid, smart board training or child behaviour and care.

SA P01: Um, well we are private, um, we don't get anything from the government. Um, we don't have a governing body. It's literally just our team. Basically. But everyone does multiple courses throughout the year. They're all constantly learning.

SA P03: Hmm, now we are doing a Montessori course. Ja. Just so, because I, at school, the, I did a course, CAPs, yes CAPs. But now we are busy with the Montessori. I did that one. They help me to improve me skills for how to deal with these, eh, kids.

SC P07: We received from Erudite. We do a Special Needs; I did a Special Needs course with them. Ja. And I'm a professionally trained nurse as well.

SD P12: Yes, everything I know today is because of our technical lady sitting behind the computer. She has offered me countless opportunities to be trained. Also, outside of school through, um, sign language training and fire and first aid training.

SE P15: For instance, especially, teacher or training, special needs, where my course involves teaching learners who are blind, learners who are, like conditions like, cerebral palsy, autism, Down's Syndrome, and the like, and then as we are hard of hearing. But I didn't know anything about Makaton science. So, we, we had a workshop. I didn't know. We already had 2 workshops on sign language, and they called Makaton [...]. And we also have some workshops on using the Smartboard. Smartboard. We're using Smartboard for teaching.

Teaching assistants are also included as a means of support for the children and educators. One of the schools mentioned that each class has between 8 and 10 children and two teaching assistants. These assistants provide aid and relief when a child requires additional support or assistance during the lesson. Anything that is noticed by the assistant is communicated to the educator, so they know how to attend to the child's needs. Where situations become difficult, they do work closely with the therapists to ensure they can assist.

SE P14: So, we, we work as a team. So, whatever they, they notice, whether it's an improvement or a regression, we communicate and we, we work out what, what is it that has caused this. What can we do to address it. And so forth. And if we feel that it's beyond our, our capabilities, then we always refer to, to our next to supervisor so that we can brainstorm and see. We involve the therapists and eventually we, we usually will come up with a strategy to, to address that.

Each school ensures their educators are supported and receive courses and support from supervisors or therapists to ensure every child is catered for.

Sub-theme: Therapy

Many children with special educational needs (SEN) will require extra support through a range of therapeutic interventions. According to Warren et al. (2011), standard therapies for ASD include Applied Behaviour Analysis (ABA), Speech and Language Therapy (SLT), Occupational Therapy (OT), Social Skills Training (SST), Cognitive Behavioural Therapy (CBT), Developmental, Individual Difference, Relationship-Based (DIR) Therapy, Early Intensive Behavioural Intervention (EIBI), Medications, and Dietary Interventions and Nutritional Therapy. Each of these approaches has various outcomes and depends on the support level needs of the individual.

For these schools, therapies vary from OT, speech and linguistics, as well as physiotherapy to aid in development.

SA P03: Yes, I've noticed some improvements. Like, with this one boy, he was non-verbal. Now, he can speak a lot, a lot, a lot (laughs). I was almost like, eh, so amazed.

But he is attending the, eh, speech therapy. Ja, ja. So maybe, that will add also. SB P04: Um, they have therapy here. But it's not all of them. Um, I think it, it, it depends on the parents. So, in my class I have like five that are able-, that are seeing different therapists. Some for speech, some for occupational, some for (pause). Ja, it's different for each problem they have.

SC P07: And then another thing that we do, for them is we get them to do some physio. It's very important. It gets them so; it gets them so relaxed.

SD P11: So, sensory play helps a lot because that's when they are, like, exploring the senses and they can ask you "what is it". They can, they, they explore like, textures and what they're going through on their pallet. Forms, and let's say, it's a little place for them to start opening up means of communication with their friends and, also with their educators, of what they are experiencing inside the box.

SE P15: There is some therapy during the day. Throughout the day, they've got therapy got, is on the timetable. ... And, at home, I know some who also have some support at home. Like, extra tutor when they're at home. Or some resource person working with them at home. But the, the support that I can talk about it is done in the school. Where, with IEP, I mean, OTs, your speech therapies, and the resource person.

Where possible, these therapies are applied within the school where an external therapist will work with each child as part of their IEP. One of the schools mentioned that therapy within the school is only provided if the parents can afford it. This highlights the concern that therapeutic interventions tend to be expensive.

5.4.3. Theme 3: Socialisation and interactions

This theme explored how the children with ASD interacted with both peers and educators within the school. Socialisation is a fundamental developmental skill that affects children with ASD (APA, 2013). Children with ASD often struggle with initiating and maintaining conversations which can make it difficult for them to develop friendships and navigate social situations (White et al., 2007). They also struggle in social settings to interpret non-verbal communication such as change in tone, facial expressions and body language. Difficulties interpreting non-verbal communication may lead to misunderstanding and often further isolates the individual (White et al., 2007).

Sub-theme: Communication

Communication and interacting on a social level are a skill individuals take for granted. Those who have been diagnosed with ASD struggle to initiate and hold a conversation (APA, 2013) so by teaching children in school how to communicate by creating instances where they will need communication, helps to build that social skill. When speaking to one of the participants at a school that caters for medium and low support children, they mentioned how they encourage that interaction by pairing a child who is considered to be stronger with a child who may struggle with communication. This pairing helps initiate that line of communication so that the children work together to complete an assigned task:

SE P16: So, stuff like games, stuff like, um, responsibility around the class today, you and you are responsible for all the activities to packed away. So, they have to talk to each other at the end of the day. OK, come, let's go pack away. And like I say with

everything, I try to pair a stronger and a weaker so that the stronger can help, can guide and encourage the other one to speak.

Peer interaction within a classroom is important because it builds social skills that can be transferred into everyday life (Kali et al., 2019). As previously stated, children with ASD tend to experience difficulties initiating and maintaining conversations within a social setting. This skill is being taught within the schools so that these children can interact easily in social settings.

One of the biggest challenges educators face is not being able to understand what is required or needed in order to assist these children. Those who are non-verbal have difficulties engaging and communicating their needs without the assistance of electronics or by pointing at objects. This increases the frustration for both educators and children and ultimately causes the child to become overwhelmed or exhibit negative behaviours. This educator explained how they go through a process to identify the child's pain points so that they can effectively assist and meet their needs:

SD P12: Um, I would say the biggest problem is maybe not always knowing what my baby needs for me because of the inability to communicate with me verbally. Um, at times it can be just difficult to understand where the, the energy is coming from and why we might be upset or why we are having a tantrum. But that's where we go through a whole process and a whole bunch of steps to kind of figure out what the, the cause or the root of the problem may be.

Communication is a skill often taken for granted, but children with ASD struggle to initiate and maintain conversations. Schools address this by creating opportunities for communication,

such as pairing children with stronger communication skills with those who may struggle, helping them work together on tasks. Peer interaction is vital for building social skills that translate to real-life situations. Educators also face challenges understanding how to support non-verbal children, who often rely on electronics or gestures to communicate. This can lead to frustration and negative behaviours. Educators work through a process to identify these children's needs, ensuring they receive appropriate support and avoid overwhelming situations.

Sub-theme: Friendships

Developing friendships is a key aspect of socialisation (Santrock, 2011). This does pose as a challenge for those with ASD because of their impaired social interactions and communication capabilities. As mentioned, ASD is characterised as “persistent deficits in social communication and social interaction across multiple contexts, including deficits in social reciprocity, nonverbal communicative behaviours used for social interaction, and skills in developing, maintaining, and understanding relationships” (APA, 2013, p. 31). These difficulties contribute to social isolation and exclusion and have implications for self-esteem, well-being, and the overall development of the child.

Schools create an opportunity for children to form relationships with others outside of the familial circle. When asked if they noticed any friendships or relationships being formed outside of the classroom, all participants mentioned a scenario where they witnessed an interaction.

SB P06: Yes, I did notice like when we are outside, one of our kids, they called, his name called Molemho, when he is outside, he likes to engage with the other older children. Tries to share, like foods, or snacks when it's snack time, during snack time.

He likes to exchange. Ja. Um, the other one, it's, um Moonlight. Ja, she likes to engage with the other children outside when it's play time. Like, in the morning, she will like to be following all the other kids. Ja. Holding hands while they play on the field.

SD P11: I know inside, in my class, there's two peers that are actually friends during, at church. So, they've known each other from church. And also, during outside time, there's my, two babies of ours that have, um, a friendship, a longer friendship together.

A factor that should be taken into consideration with regards to forming connections and friendships is the effect an absent child has on another. Bonding with peers is not a straightforward task for a child ASD. A friend becomes part of their routine, and they know they will see their friend at school tomorrow. This becomes challenging when a child is absent due to ill health or when they move schools. These situations cause low-self-esteem, increased anxiety, and feelings of isolation and confusion.

SE P15: Then we let them play on their own and see who's, who, who is friends with who. Now I know them. Peter is the friend to, to John. They'll, they will find each other. We try to discourage that again, to say don't play with one person. Because when that person is absent, then they don't want to do anything. It affects the whole day.

Initially, educators are the medium to facilitate and create opportunities for interactions and conversations within the classroom. Gradually, that is removed so that the children can interact more freely. This does, however, create an opportunity for exclusion of certain children within the classroom. To combat this, one of the educators mentioned how they encourage inclusion and have the children play with someone they wanted to exclude. This approach ensures each child is part of a group and has an opportunity to interact. They also mentioned how they assist

with encouraging playdates outside of the school. This further aids in the children's social development and well-being.

SE P16: I've noticed that, in the beginning, you are the source of content. Always. But now they don't wait for you anymore. They seek out who they want to speak to. They seek out who they want to play with, and they even say it out. What we're doing now is teaching not to be mean because then we get "I don't want to be with you" or "I'd rather be with". And because we're trying to have that inclusion, we'll say, "OK, just include her for today" or "include her for this game so that she doesn't feel left out". But it's not a prompt anymore. It's not a, you go play with, you do this. They go on their own [...]. So, I've got the boys that are now seeing each other outside of school, play dates. When it's birthdays, they'll go out. And the parents are now initiating on their own. Fine, in the beginning, they'll ask you, "who does my child get along with? I'm having a party. Who do you think would be able to come through?" That's how it starts. But now it's taken off and you'll hear when they back, "ohh, I was having a playdate with-", "ohh, I went to his birthday", and it's something that's growing, which is actually great because, ja. Sometimes our parents don't actually want to have play dates because they think it's going to be too much, or they can't handle it. But when they do, it's, it's awesome.

Developing friendships is a key aspect of socialisation, but children with ASD face challenges due to difficulties in communication and social interaction (Santrock, 2011; APA, 2013). These challenges can lead to social isolation, affecting self-esteem and overall development. Schools provide opportunities for children to form relationships, with educators initially facilitating interactions before gradually stepping back. However, this can sometimes lead to exclusion.

To promote inclusion, some educators encourage children to interact with those they may otherwise exclude and facilitate playdates outside of school to support social development and well-being.

Sub-theme: Working together.

Group work plays a crucial role in education. It encourages collaboration, enhances communication, and supporting the development of social skills. However, for children with ASD, group work presents significant challenges due to their difficulties with social interactions, communication, repetitive behaviours, and interpretation of non-verbal social cues (APA, 2013). Despite these challenges, group work provides valuable opportunities for children with ASD to enhance their social skills, promote teamwork, and develop problem-solving abilities. This will, however, require careful planning and support from educators to facilitate this engagement.

Children with ASD struggle with group work due to their lack of understanding of group dynamics, turn-taking, and initiating conversations (Santrock, 2011). Difficulty interpreting non-verbal cues, such as facial expressions, body language, and tone of voice, can result in misunderstandings within group settings. Subtle changes in tone, facial expressions and body language to convey frustration will not be easily identified which may result in conflict. In order to facilitate group work and interactions, the one school mentioned how the tables are set up to ensure that the children are close together. The close proximity of their seating arrangements ensures that they can interact with each other during group activities and tasks:

SB P04: So, we do group work. But even the way the tables are set, they are actually close to each other. So, they're able to interact with each other. They're like, an elbow distance from each other.

For one of the other schools, each week has a specific theme that is followed. This forms the basis for the set activities in the lesson plan. Each theme allows for planned group activities and pair work to encourage collaboration.

SD P11: So, we have, um, every week we have a theme. So, within our theme I do make activities where they can be paired with a friend. Um, some activities will be class, um, it will be like a group activity. So there, we can encourage things like turn taking, um, sharing, and stuff like that.

In another school, the educators mentioned that they do support and facilitate interactions where a classroom activity is either designed for pair or group work. By creating two different scenarios, those who struggle with larger group settings have the opportunity to engage and learn without becoming overwhelmed or anxious. The larger group activities allow for social skills development where they are able to learn skills such as turn taking and sharing.

SE P14: So, we, we have what we call the structure play. Structure play is where we, we, we sort of facilitate the interaction between either two people or a group of them to, to, um, we also have social skills[...] We do have those who are comfortable with them amongst people, but in most cases they prefer playing by themselves. So, in order to facilitate interaction and then, we get them to do that as a group or in pairs to encourage social interaction.

Even with group activities, there will still be a child that isolates themselves and prefers to not engage in the activities. They may disengage from the lesson plan and not want to partake in the activity or are overwhelmed by the sensory overload. Children with ASD may wander off or exhibit negative behaviours when they become overwhelmed (APA, 2013). It's the educator's responsibility to notice these changes in behaviour so that the child who is feeling overwhelmed is supported.

SE P15: Some games allow them to play in twos. Some of the games are like, there's a team A, team B, and then, one learner will be putting in the correct answers they call out. It's a co-operative process.[...] So, it could be group session, it could be a pair work. All those things, I think, they encourage, but there's still, there are some who wander, wander away, and find them still there alone.

Again, one of the key aspects of group work is having support from peers and educators. Peer support was noticeably a key strategy utilised by educators. Children who have formed a connection are paired so that anxiety and stress during group activities or pair work can be managed and minimised as much as possible.

SE P16: OK, so still that peer support. Because maybe as the teacher or the adult might come across as a scare (laughs). So, someone on their level, makes it easier for them. So, we kind of sort of use this this trick across the board. And then encourage. If I see that they are friends, we pick a friend to help a friend. If I see that they're very shy, you pick someone who is very open, who's very chatty to sort of help them, support them, and convince them that it's OK.

Group work is important for developing collaboration, communication, and social skills. However, for children with ASD, it presents challenges due to difficulties with social interactions, communication, and understanding non-verbal cues (APA, 2013; Santrock, 2011). Despite these challenges, group work offers opportunities for social skill development and teamwork. Educators can support children by creating structured group activities, such as seating arrangements that encourage interaction or weekly themed lessons that promote collaboration. Some children may still struggle with larger group settings, preferring isolation or disengaging due to sensory overload. It is the educator's role to monitor and support these children, ensuring they are not overwhelmed and are included in group activities.

5.5. CHAPTER CONCLUSIONS

This chapter analysed data from interviews with educators about their experiences working with children diagnosed with ASD, focusing on how these experiences influence school interactions and inclusive education. Three main themes emerged: Factors Affecting the Children's Abilities, Impact of Support Provided by Educators, and Socialisation and Interactions.

Routine plays a crucial role for individuals with ASD by providing stability, reducing anxiety, and enhancing overall wellbeing. It enables children to predict their environment and navigate daily activities with greater ease, which is essential for managing sensory sensitivities, improving focus, and supporting learning. The first theme of the study highlighted the communication, sensory, and social challenges children with ASD face, which vary in severity. Recognising individual needs is key to tailoring effective support strategies and ensuring children can thrive in their environment.

While a structured routine is vital, it is also important to gradually introduce changes to help children build resilience and adaptability. Research and educators highlight that even minor disruptions can cause significant anxiety, but careful, gradual alterations to routines can promote emotional regulation and develop essential life skills. The second theme emphasised the crucial role of educators and support strategies, such as AAC devices and teaching assistants, in fostering an inclusive environment. Collaboration with parents and other professionals is also essential to ensure the support strategies are effective.

The third theme explored how children with ASD struggle with socialisation, often leading to isolation. However, with appropriate support, mainly through group work, these children can improve their social skills and become more engaged. The main challenge for schools is balancing the educational and support needs of each child while maintaining a suitable learning environment. Children with higher support needs may require one-on-one assistance, while those with more independence can benefit from greater autonomy. Ultimately, accommodating children with ASD depends on their specific support levels, and the type of school, whether mainstream or SEN, plays a key role in meeting these needs. Educational environments must provide the appropriate support structures to enable all children to thrive within their capabilities, balancing consistency with flexibility in routines to prepare them for an unpredictable world.

The findings align with Bronfenbrenner's Bioecological Model, showing that a child's development is influenced by various environmental systems, including family, school, and society. The study underscores the need for a collaborative, integrated approach to supporting children with ASD in their educational and social development.

CHAPTER 6

DISCUSSION

6.1. INTRODUCTION

The Bioecological Model of Human Development, developed by Urie Bronfenbrenner, provides a comprehensive framework for understanding how individual development is shaped by interactions with various environmental systems (Bronfenbrenner et al., 2007). This model breaks society down into multiple layers surrounding the individual and examines how each layer interacts with the others (Kali et al., 2019). It is particularly useful for exploring the developmental experiences of children with ASD, who face unique challenges that can impact their growth. The Bioecological Model offers a way to understand how different environmental factors, including family, school, and societal influences, can either promote or hinder a child's development (Bronfenbrenner, 2005; Bronfenbrenner et al., 2007).

6.2. DISCUSSION OF FINDINGS

Bronfenbrenner's Biological Model consists of several interconnected systems that depicts human development, "Microsystem, Mesosystem, Exosystem, Macrosystem", with the "Chronosystem" being included at a later stage (Santrock, 2011). This model has been analysed in terms of ASD and how each ecological system has an effect on the child's development.

The findings from this study reveal that the mesosystem plays a pivotal role in the development of relationship-building and socialisation for SEN children, particularly those with ASD. This aligns with Bronfenbrenner's Ecological Systems Theory, which highlights the mesosystem as the level where different microsystems (family, school, and peers) interact (Bronfenbrenner,

2005). These interactions are vital because they offer a space where children can develop essential communication skills, social abilities, and establish more meaningful relationships.

In the context of this study, it became evident that the connections between home and school, as well as between educators and peers, were fundamental to fostering positive social outcomes for children with ASD. The role of the child's family was particularly significant, as a supportive family environment that collaborates with schools can create a stable support system for the child (Baker et al., 2017). This collaboration allows for more specialised and consistent strategies across different environments, helping children feel secure and understood. Additionally, interactions with the child's peers within their school environment also contributes to the development of social skills and emotion regulation. This demonstrates the importance of these interconnected systems in encouraging more positive developmental outcomes (Xia et al., 2020).

Bronfenbrenner's model highlights that these interactions within the mesosystem are not just additive, but dynamic (Miller et al., 2016). The quality of interactions between microsystems can either support or hinder a child's ability to form meaningful relationships and engage socially (Hines et al., 2015). For children with ASD, this is particularly crucial, as they often require consistent, adaptive strategies across different environments to thrive socially. This study's findings suggest that the mesosystem's influence extends beyond sheer proximity, with the quality and nature of the interactions between these environments playing a central role in the child's development.

The participants in this study mentioned that some children tend to prefer isolation over group interactions. Some may only engage with peers when they are encouraged by educators or

when paired with one of their peers who is considered more confident in navigating interactions. Children with ASD often experience significant challenges in communication, which hinder their ability to participate in group discussions and understand group dynamics (APA, 2013). These difficulties in interpreting nonverbal cues often resulting in misunderstandings, leading to social isolation and feelings of exclusion among peers was also noted by Scattone et al. (2006). To mitigate the potential exclusion noted by Scattone et al (2006) the educators from this study mentioned that these children are given the opportunity to interact one-on-one with their peers as well as in a group, to aid in their social development. It was noted by several educators from various SEN schools that even with encouragement and support, some of the children would find solace once they removed themselves from the group related engagements. This observation emphasises the complexity of social development for SEN children, where social withdrawal may stem from factors such as anxiety, sensory overload, or difficulty in interpreting social cues (Goin-Kochel, 2008). For some of these children, group dynamics may be uncomfortable or overwhelming, which leads them to seek isolation. This response may be misinterpreted as withdrawal rather than as a coping mechanism (Goin-Kochel, 2008; Wang et al., 2013).

Proximal processes are complex interactions between the child and the various individuals within their microsystem. For children with ASD, these processes are particularly challenging due to difficulties in social communication and behavioural regulation (Wang et al., 2013). However, when supported by educators and peers, these interactions can become opportunities for growth. Group work, for instance, can be beneficial in promoting social skills and cognitive development, but it can also be overwhelming for children with ASD (Baker et al., 2017). The participants from this study mentioned that they coordinate and support all group and paired

activities within their classrooms. This is supported by Baker et al. (2017) and Wang et al. (2013) where the educators monitor all group interactions for signs of distress. When children become loud or frustrated, the educators mentioned that their teaching assistant would intervene so that the lesson is not disrupted for their peers. Teaching assistants play a crucial role in this dynamic, providing tailored support that ensures children remain engaged and supported throughout group tasks. Despite these challenges, with the right support, these proximal processes can lead to positive developmental outcomes. Schools that foster positive relationships between peers and educators create an environment where children with ASD feel included and supported (Bronfenbrenner, 2005; Xia et al., 2020). These relationships are essential for establishing a sense of belonging and reducing social isolation.

With regards to support, educators in this study mentioned that they paired children with more confident peers allows. This allows them to receive assistance in a natural, supportive environment, fostering both social and communication skill development (Carter et al., 2014; Odom et al., 2010).

The various approaches taken by the participating schools demonstrated the value of structured support in the child's learning environment. Odom et al. (2010) and Carter et al. (2014) demonstrated that matching children with ASD with more self-assured peers supports and helps them acquire important abilities. According to their research, children with ASD are more likely to participate in worthwhile activities that can advance their academic performance and foster social inclusion when they receive assistance from their peers.

Roth et al. (2017) have also stressed that structured support, like peer support and group activities, can help ease stress and anxiety, which in turn helps children better manage their

emotions and engage fully in class activities. This evidence stresses the importance of creating a structured and inclusive learning environment where children with ASD are supported and able to thrive both socially and academically. These schools often promoted group work and peer support activities to help children with ASD overcome communication challenges. Research has shown that structured support can help reduce stress and anxiety, making it easier for children with ASD to regulate their emotions and engage in group activities (Carter et al., 2014; Odom et al., 2010; Roth et al., 2017). This type of support creates a more inclusive classroom where children with ASD are more likely to succeed.

According to Roth et al. (2017), peer support and the participation of teaching assistants are essential in these settings for improving the educational process and assisting children with their social and cognitive growth. The schools in this study gave children the best chance to flourish in their learning environment by attending to their particular requirements. The bioecological model suggests that when interactions are consistent and supportive, children are more likely to engage in group activities and develop social skills (Xia et al., 2020).

For instance, the Montessori method, which focuses on collaborative learning, has been shown to help children with ASD develop communication and social skills when tailored to their needs (Baker et al., 2017; White et al., 2007). At one full-service school, an educator highlighted the effectiveness of the Montessori method, mainly how it allows children to learn at their own pace. By providing a customised learning experience, lowering anxiety, and fostering personal development, this method helps children with special education needs (Baker et al., 2017; White et al., 2007). Makaton SA (2024) suggests that this approach helps reduce stress and creates a positive learning environment by letting children explore content at their own pace. The Montessori method promotes a more independent and hands-on learning approach

focusing on each child's needs. This approach can be particularly beneficial for children who may struggle with the structure of traditional schooling.

One selected school that cater for medium support needs mentioned that, while they follow the CAPS curriculum, they also incorporate the Montessori method for students who could benefit from it. This adaptability enables the school to modify the curriculum to suit the unique requirements of every student, guaranteeing that they get the best possible support. This kind of individualised education is crucial for helping children with ASD because it adapts to their evolving learning and developmental needs (White et al., 2007).

Beyond the school setting, the family's role is also critical in the development of children with ASD. When speaking with educators from the participating schools, several mentioned the collaboration between the school, parents, and various therapists to ensure that each child's educational needs are met. This illustrates a positive proximal process, where steady, supportive interactions in the child's immediate surroundings aid in their development. As highlighted by Bronfenbrenner (2005), these interactions; whether involving the child, educators, parents, or therapists; are crucial in shaping the child's progress and experiences. The alignment of support across home and school creates a structured, consistent environment that promotes greater engagement with both the curriculum and peers. This coordinated approach not only helps reduce frustration but also enables the child to participate more effectively in school activities, supporting their overall development and inclusion (Bronfenbrenner, 2005; Xia et al., 2020). By fostering these positive proximal processes, the school environment plays a significant role in the child's growth. This is also supported by Horner and Sugai (2015) who noted that educators can collaborate with parents to gain a deeper

understanding of the child's strengths and challenges, ensuring that group tasks are designed to meet the specific needs of the child.

Children who require minimal support from educators generally navigate social settings more easily than those who need additional assistance (APA, 2013). Educators observed this when children began socialising outside the school environment. Parents often sought guidance from educators to better understand the relationship dynamics between their child and a peer in their class. These children had started to form connections and friendships with peers they had been with for a longer period. The development of these relationships can be influenced by the child's person characteristics, such as temperament, social skills, and communication abilities, which shape how they engage with others (Bronfenbrenner et al., 2007). Additionally, the proximal processes, including interactions with peers and educators, play a vital role in the child's social development. These processes become more frequent and reciprocal over time, helping the child build confidence in navigating social situations. This also aligns with the concept of macrotime and long-term development, illustrating how children gradually become more confident with managing social settings as they gain experience and maturity (Bronfenbrenner et al., 2007).

The data collected from various schools suggests that, despite varying levels of support needs, children with ASD frequently face behavioural challenges, often stemming from frustration related to their communication difficulties. These challenges are primarily linked to their struggles in expressing thoughts and emotions, which influence how they interact with peers and educators (Lloyd et al., 2019; Rutter et al., 2017). One participant shared their observation that children with limited verbal communication often exhibit aggressive or negative behaviours when they become frustrated. For example, one child struggled to express what

they did over the weekend to their peers or educator, leading to frustration and the throwing of objects. Although the child was provided with an AAC device to assist in communication, their options were restricted to pre-loaded boards, which may not always meet their specific needs in the moment. These AAC devices are also utilised at the child's home to support their communication needs. When there is this type of coordination between home and school in terms of supportive strategies and devices, it helps reduce frustration and ensures consistency in the child's developmental support.

This outcome was also noted by Lloyd et al. (2019) and Rutter et al. (2017), who noted that children with ASD experience less frustration and better behavioural outcomes when there was coordination between the support strategies at home and school. This was specifically with regards to the use of communication support devices such as an AAC device. Both of these articles emphasised that when communication tools were consistently utilised in both school and home environments, it improved the children's ability to express themselves, which resulted in better emotional regulation and less behavioural related issues. This coordination creates a more stable and supportive environment for development. Children with ASD gain from it by being more equipped to handle social settings and engage in more academic pursuits.

The findings of this study highlight the crucial role of educator training in supporting children with ASD in South Africa, where resources and support services are often limited (Deolinda, 2021; Hako, 2022). The participants highlighted that they had the opportunity to attend courses in communication, special needs training, alternative teaching methods, and first aid. Effective teacher training can significantly improve the educational experience for children with ASD by equipping educators with the skills and knowledge needed to address individual learning needs. This aligns with the work of Lindsay et al. (2014), who emphasise that educators trained in

recognising the traits of ASD can foster more inclusive classrooms that cater to diverse learning styles, thus creating a supportive and accepting environment.

A key finding from the study is that well-trained educators are better able to implement individualised teaching methods, such as using visual aids, structured routines, and positive reinforcement. This is particularly important in South Africa, where limited access to resources makes it difficult to provide extensive support services for children with ASD (Lindsay et al., 2014; Ndlovu, 2020). These findings align with those of Gould et al. (2018) and Guldberg et al. (2017), who argue that early identification of learning disabilities and ASD traits allows for early intervention, which can improve educational outcomes for children. Educators equipped with these skills can tailor their teaching strategies to the needs of children with ASD, thus enhancing child engagement and learning.

The concept of change is particularly significant for children with ASD, as transitions between activities or shifts in their environment can be challenging. Such changes can impact their emotional regulation, perception of time, and engagement with their surroundings (APA, 2013). To address these difficulties, strategies like visual schedules and gradual transitions are often employed to help children with ASD adapt (Schreibman et al., 2015). Educators in this study also noted the importance of these methods. Given that children with ASD often struggle with disruptions to their routines, the educators maintain open communication, explaining upcoming activities using the schedule displayed on the board.

Several educators highlighted how they structure daily and weekly schedules, which are clearly displayed on the board and discussed during circle time or the morning ring. This approach helps children understand what is expected of them and allows them to visualise the day's

routine, thereby reducing anxiety. Routine plays a crucial role for individuals with ASD, providing stability, reducing anxiety, and enhancing overall wellbeing (Rutter et al., 2017). It enables children to predict their environment, navigate daily tasks more easily, and manage sensory sensitivities, all of which support learning (Gordon et al., 2020). A consistent routine can reduce stress and facilitate smoother social interactions (Gordon et al., 2020).

Additionally, this research study emphasises the importance of collaboration between educators, families, and external professionals. In the participating schools, educators who received training on how to work with both internal and external professionals were able to create a more extensive learning environment. This collaborative approach aligns with the proximal processes model, where interactions between the child, educators, parents, and professionals collectively contribute to the child's development (Gould et al., 2018). The educators in the study noted how parents, who facilitated access to external professionals, played an essential role in ensuring continuity of care both at school and at home, thus enhancing the child's overall learning experience. This holistic approach highlights the necessity of supporting not only the educator but also the broader network around the child, which is consistent with findings by Gómez-Marí et al. (2021) and Soni et al. (2021), who stress that teacher training can reduce stigma and promote greater societal inclusion of individuals with ASD.

The study also revealed that, in schools where educator training was implemented, there was a greater likelihood of promoting inclusive educational practices. This included modifying group tasks and providing additional support for children with ASD to participate in group activities alongside their peers actively. This finding aligns with the work of Guldberg et al. (2017) and Soni et al. (2021), who highlight that inclusive education practices can significantly enhance

social integration for children with ASD. In contrast, schools lacking adequate resources and trained educators faced challenges in supporting children with ASD, which ultimately limited the child's ability to participate in group tasks and social activities (Howlin, 2013).

However, cultural and societal factors in South Africa also present challenges to the acceptance and understanding of ASD. The study highlighted how cultural beliefs, particularly in rural communities, may influence how behaviours associated with ASD are interpreted. Baatjes et al. (2020) argue that in certain South African cultures, the behaviours of children with ASD might be misinterpreted as stemming from supernatural or spiritual causes, rather than being recognised as part of a developmental disorder. These cultural attitudes fall within the exosystem, as they shape how children with ASD are perceived and what accommodations are made for their educational needs (Lindsay et al., 2014). While awareness of ASD has grown, these cultural barriers can still hinder effective intervention and support for children, particularly in rural or less-developed areas.

Educators from the selected schools emphasised their collaboration with parents and professionals to create IEPs for each child, tailored to address specific needs and set measurable goals for academic, social, and emotional progress. These flexible plans can be adjusted over time to accommodate the child's evolving needs (Belsky, 2024). This is supported by the Education *White Paper 6* policy which has had a significant impact on the socialisation and adjustment of children with ASD, promoting inclusive attitudes, providing legal protections, and improving access to resources for families (Pillay et al., 2022; Swart et al., 2017). This policy has fostered a collaborative environment where educators, parents, and healthcare professionals work together to support the child's academic and social development. Through

these interactions, children with ASD can develop crucial social skills and navigate their school life more effectively (Guldborg et al., 2017).

Improvements in communication, social interactions and formation of relationships with peers were noticed by educators despite the fact that children with ASD struggle to easily navigate social interactions and form meaningful relationships (APA, 2013; Santrock, 2011). The educators observed that, as a result of their initial pairing and group activities, children were becoming more social and actively forming relationships with minimal intervention. This aligns with Mauder and Monks (2019), who highlighted that friendships are built on common interests, emotions, respect, and support. Through group activities and playtime with peers, these children have the opportunity to develop shared interests and better understand each other within their learning environment (Gómez-Marí et al., 2021).

The study also emphasised that the severity of each child's condition affects various developmental areas, such as communication, sensory processing, and social interactions. Recognising individual needs is essential for creating effective support strategies, which help children thrive in their environments (APA, 2013; White et al., 2007). Support mechanisms such as AAC devices, Makaton, and the assistance of teaching assistants were identified as crucial tools for enhancing communication and socialisation. This is supported by Carter et al. (2014) who emphasised that a collaborative approach within the school is vital for creating a supportive and inclusive atmosphere. These interventions align with South African inclusive education policies, underlining the importance of providing adequate resources to foster growth and development in children with ASD (Ndlovu, 2020; Pillay et al., 2022).

6.3. CHAPTER CONCLUSIONS

In conclusion, Bronfenbrenner's Bioecological Model of Human Development offers a comprehensive framework for understanding how various environmental systems (microsystem, mesosystem, exosystem, macrosystem, and chronosystem) interact and influence a child's development, particularly in the context of ASD. This study focused on the mesosystem, specifically the interactions between a child's family and school, recognising these immediate environments as essential in supporting children with ASD. The research highlighted the importance of personalised strategies such as visual aids, peer support, and teaching assistants to help children with ASD engage in group activities and improve social skills. It also underscored the crucial role of family involvement, where a supportive home environment significantly enhances communication and socialisation.

Overall, the Bioecological Model provides valuable insights into the developmental experiences of children with ASD, emphasising the need for coordinated support across family, school, and societal systems. The findings stress that inclusive educational settings and tailored interventions play a pivotal role in fostering the social and academic development of children with ASD. A collaborative approach, involving parents, carers, and educational professionals, is essential for ensuring these children's growth and well-being.

CHAPTER 7

REFLEXIVITY: SUMMARY OF CONCLUSIONS, LIMITATIONS IDENTIFIED, AND RECOMMENDATIONS

7.1. SUMMARY OF RESEARCH

This research project aimed to enhance the understanding of how children with ASD navigate social interactions and build relationships within their school environment. Socialisation is a critical aspect of childhood development, and for children with ASD, it can often present significant challenges. By exploring how these children interact with their peers and educators, this study sought to uncover the unique experiences of children with ASD, as perceived by their educators. Through this, the research hoped to provide a clearer picture of the role educators play in supporting social development, and how their observations and strategies can foster an inclusive and supportive school environment.

The study utilised a qualitative, cross-sectional design, focusing on educators' insights and experiences in primary schools. By employing non-probability purposive sampling, the research targeted educators with varying levels of experience in working with children with autism. This approach allowed the study to capture a broad spectrum of perspectives, ensuring that the data gathered reflected the diverse experiences of educators in terms of their knowledge of autism, and their methods for supporting children with ASD.

Data collection involved semi-structured interviews with 15 primary school educators from Gauteng. These interviews provided an in-depth platform for educators to share their observations and reflections on how children with ASD engage socially within their classrooms

and playgrounds. The semi-structured format allowed for flexibility in exploring specific areas of interest, while also providing structure to ensure all relevant topics were covered. Once transcribed, the interview data were analysed thematically, allowing the researcher to identify and interpret key themes and patterns relating to the socialisation and relationship-building experiences of children with ASD.

A central aim of this research was to produce insights that can inform educational practices, policy decisions, and the development of support systems for children with ASD. It was looked at through Bronfenbrenner's Bioecological Model of Human Development, which provided a useful framework for understanding the dynamic interactions between children and various environmental systems. Bronfenbrenner's model emphasises that the child's development is shaped by multiple contexts, such as the family, school, and broader societal influences. By understanding the experiences and challenges faced by both children with ASD and the educators who support them, the findings of this study can contribute to the creation of more inclusive and effective educational strategies.

This research project highlights the importance of tailored support, educator training, and inclusive teaching practices in fostering an environment where children with ASD can develop the social skills necessary for building positive relationships with their peers and educators. Ultimately, the findings aimed to enrich the current body of knowledge on autism and education, offering practical insights that can benefit educators and school staff, policymakers, and support organisations working to improve the educational experiences of children with ASD. This study emphasises the crucial role educators play in supporting children with ASD, emphasising the need to create learning environments that are both academically stimulating

and socially inclusive. This will ensure that all children have the opportunity to thrive and develop.

7.2. SUMMARY OF FINDINGS

7.2.1. Findings in Relation to the Research Questions

This research study aimed to determine the socialisation adjustment of children with ASD within a school environment by conducting interviews with educators at schools that cater for SEN. The primary question this study attempted to answer was:

RQ: How do children with various severity levels of autism communicate and interact with their peers outside of the classroom, as perceived by an educator.

The participants demonstrated a strong understanding of ASD and were primarily responsible for teaching or closely involved in lesson planning. These educators provided valuable insights into their experiences working with children with ASD, highlighting the significant impact of various support mechanisms on both their educational and social development. Through effective support, tailored interventions, and inclusive educational practices, these educators have helped children with ASD engage in learning while also developing the social skills necessary to form meaningful relationships.

A key takeaway from this study is the importance of a holistic approach to supporting children with ASD. This includes the involvement of educators, peers, and support staff and the implementation of targeted strategies such as adapted teaching methods, communication aids, and social skills development. Educators are essential to this process, as they are in a unique position to observe and respond to the daily challenges faced by children with ASD.

Beyond the educator's role, the research study highlighted the value of collaborative approaches. A supportive school environment involves not only educators but also peers and support staff, all of whom can contribute to the child's growth. For instance, peers can play an important role in helping children with ASD navigate social situations. However, they must be educated and guided on how to interact in ways that are both understanding and inclusive. This strategy facilitated the initial socialisation and communication within the classroom that can be utilised outside with their peers.

Educators initially act as the primary facilitators of communication but gradually step back to allow the children to engage with each other and discuss activities independently. Over time, this process helps foster friendships, with some children even socialising outside of school, such as through playdates. This demonstrates how meaningful connections can develop as children become more comfortable with their peers. However, educators observed that encouraging a single close friendship was not ideal, as it often led to distress when the friend was absent or changed schools. This was particularly noted in schools catering to children with lower support needs, where educators encouraged children to play with different peers each day. This approach not only promotes inclusion but also encourages social interaction among children with varying interests and abilities.

Those who lack linguistic abilities or are considered non-verbal were shown Makaton or given some form of AAC device. The devices and sign language allow children to communicate and express their needs or concerns. Those who are unable to verbalise their desires also point and make a sound to indicate what they need. This form of communication was noted by educators for the high support and medium support needs children. Even though they cannot hold a conversation, they are able to convey their needs to peers, educators and support staff. In some

cases, children with low support needs stepped in to assist with children with high support needs and were seen holding hands or playing together on the playground. In most cases, these children were asked to assist but gradually became more comfortable and would initiate a conversation with their peers outside of the classroom. By adopting a holistic, collaborative approach and implementing targeted strategies, educators can empower children with ASD to reach their full potential, both academically and socially.

7.2.2. Findings in Relation to the Theoretical Framework

Children with Autism Spectrum Disorder (ASD) face challenges in social communication and understanding social cues. Bronfenbrenner's Bioecological Model of Human Development offers a framework for understanding how various environmental factors impact the development of children with ASD (Bronfenbrenner, 2007). This model suggests that development is influenced by interconnected layers, from immediate environments like family and school to broader societal factors (Santrock, 2011).

The microsystem, which includes family, school, peers, and educators, is critical for children with ASD. In school, group work presents both opportunities and challenges for these children, who may struggle with communication and understanding group dynamics (APA, 2013). Educators can help by facilitating group activities and offering additional support through peer friendships, which helps reduce anxiety and encourages participation. This approach is also observed on the playground, where some children prefer solitary play, while others engage in group activities.

Positive relationships with peers, educators, and family are essential for the social integration and overall development of children with ASD. With appropriate support, children can enhance

their communication skills and engage more fully in group learning, as seen in methods like Montessori (Baker et al., 2017). The family environment plays a crucial role by reducing frustration and negative behaviours, helping to promote the child's development (Baker et al., 2017). Collaboration between parents, educators, and therapists ensures the child's needs are met, contributing to a more effective support system.

Bronfenbrenner's Bioecological Model highlights how various environmental systems, such as the microsystem, mesosystem, and macrosystem, which shape the development of children with ASD. Educators, peers, and family members all play key roles in fostering an inclusive, supportive environment that enables these children to thrive academically and socially. The theme of behaviour further revealed how factors like communication difficulties, emotional regulation, and social interaction can either support or hinder a child's learning experience. Children often struggle with frustration when unable to express themselves effectively. Educators emphasised the importance of adapting to each child's unique needs using assistive technologies and creating flexible, less overwhelming environments. Understanding these challenges enables educators and assistants to implement more effective strategies, helping children better engage with learning and navigate their school environment.

7.3. VALUE OF RESEARCH IN RELATION TO RELEVANCE AND FINDINGS

This research report highlights educators' significant role in facilitating communication and socialisation of children with ASD. These children are not able to initiate a conversation alone and require support through AAC devices or peer support to hold a conversation. Limited research has been conducted regarding Southern Africa, and most studies are based on American studies. This report can add valuable insight to the current body of knowledge and enhance the findings from a South African perspective.

This research report set out to better understand the social aspect of ASD and add to the current body of knowledge. The information collected revealed teaching methods and strategies that assist children with various support level needs to interact and communicate. From peer support, to Makaton, to AAC devices, all of these children and their needs have been catered for. Children with ASD struggle in a social setting and are unable to understand group dynamics. By teaching valuable skills and demonstrating acceptable communication skills, these children are more equipped to enhance their social skills and form more meaningful friendships.

7.4. STUDY LIMITATIONS

The study focused on a maximum of six schools within Gauteng, all within driving distance, allowing for the inclusion of 15 educators across these schools. Due to the formation of meaningful friendships only occurring as children mature, the researcher focused on the intersen phase only. However, this research would benefit from being conducted on a larger scale to obtain a more comprehensive comparison regarding the significance of support and to identify the necessary measures for maximising learning outcomes. For this, a shift to a quantitative approach would be required, with a questionnaire distributed via social media to educators across South Africa, rather than limiting the study to those in Gauteng. A broader comparison based on SES and available resources could help pinpoint key areas of concern, highlighting where children with ASD and other SEN may be overlooked due to a lack of essential resources and funding. The participating schools for this study included both those in the private and government sectors in order to compare resources adequately.

7.5. RECOMMENDATIONS FOR FURTHER RESEARCH

The researcher believes that there is still a gap in knowledge regarding the socialisation of children with ASD. A study that compares both the intersen phase and high school could add to this body of knowledge. This study could compare the relationships of high school students and compare it to the current data collected for this research report. This would allow for a greater understanding of adolescent relationships and friendships that may be considered more meaningful.

This study was limited to Gauteng, and further research may be needed in other provinces and school districts to provide a more comprehensive understanding. Expanding the research to other regions could help address the existing knowledge gap regarding the socialisation of children with ASD within South African schools. In addition, future research could explore schools with diverse socio-economic backgrounds to gain a broader understanding of the challenges and needs of children with ASD across different demographic groups. This would help identify how socio-economic factors influence the support and resources available to children with ASD, and how these factors may affect their social development and academic outcomes.

Another area to consider is the difference between genders and how ASD is displayed regarding males and females. The study included a mix of male and female educators who referred to male and female children. However, ASD does not present itself in the same manner across genders. As stated by Hull et al. (2020), females with ASD tend to express a stronger interest in socialising and forming friendships, while males often show less interest in social interactions or prefer to engage in solitary activities. This makes the male autism diagnosis more noticeable, and females are generally misdiagnosed.

7.6. REFLECTION AND RECOMMENDATIONS FROM FINDINGS

This research study has offered valuable insights into the experiences of educators working with autistic children by shedding light on the impact of various support mechanisms on their educational and social development. By integrating these findings with the theoretical framework and existing literature on ASD, this research report has deepened the researcher's understanding of the unique challenges and opportunities that arise in inclusive education settings. The study highlights the critical role of effective educator support, tailored interventions, and inclusive educational practices in creating an environment where children with ASD can thrive and reach their full potential.

The findings highlight the importance of adopting a holistic approach to supporting children with ASD, one that considers not only their individual needs but also the broader educational context. This includes the involvement of educators, peers, and support staff, as well as the use of targeted strategies such as adapted teaching methods, communication aids, and social skills development. The study also emphasises the need for continuous professional development for educators to better equip them with the knowledge and skills required to address the diverse needs of children with ASD.

Moving forward, the implications of these findings are significant for educational practice, policy, and future research. This research highlights the crucial need to improve support systems and interventions for children with ASD in different school environments. This may be more apparent in low SES mainstream classrooms with insufficient resources. Future research could examine the effectiveness of specific interventions, such as support devices or peer-facilitated approaches, and assess their long-term impact on the academic and social development of children with ASD. In addition, there is a need for policies that promote greater

inclusivity, which ensure that all children, regardless of their support level needs, have access to high-quality education in environments that support their development.

This study contributes to the ongoing conversation regarding inclusive education by offering practical insights into how educators, schools, and educational systems can better support children with ASD. By focusing on the educational landscape's challenges and opportunities, this research provides a foundation for future advancements in ASD support. This could ensure that children on the spectrum are given the best opportunities to succeed academically, socially, and personally.

7.7. CONCLUSIONS

This research project has provided valuable insights into how children with Autism Spectrum Disorder (ASD) navigate social interactions and build relationships within the school environment. The study focused on the critical role of educators in supporting social development, highlighting the strategies they employ to assist children with ASD in forming meaningful peer relationships and fostering a more inclusive classroom. By exploring the experiences and perceptions of educators, the research contributes to a deeper understanding of the challenges these children face, and the effective approaches used to address them.

The findings underscore the importance of a holistic and collaborative approach to supporting children with ASD, where educators, peers, and support staff work together to create an environment conducive to social growth. Educators, in particular, play a pivotal role in this process, not only through the implementation of tailored interventions and support mechanisms but also by facilitating peer interactions and encouraging social skills development. Through strategies like communication aids, peer support, and structured group activities, children with

ASD are given opportunities to engage with their peers, develop social skills, and form lasting friendships.

Using Bronfenbrenner's Bioecological Model of Human Development, the study highlights how various environmental factors—such as the school setting, family involvement, and broader societal influences—interact to shape the social and developmental outcomes of children with ASD. The microsystem, especially the school environment, is crucial in providing the support needed for these children to thrive. Positive relationships with peers and educators promote a sense of belonging and inclusion, essential for enhancing academic and social outcomes.

The research also underscores the importance of educator training and the need for more inclusive educational practices. Educators need to be equipped with the knowledge and skills to address the diverse needs of children with ASD, and schools must adopt more comprehensive strategies to promote social integration. Peer support systems also play a significant role in helping children with ASD develop communication skills and navigate social situations more effectively.

In conclusion, this study contributes to the growing body of knowledge on ASD in educational settings. It offers practical insights into how educators and schools can better support children with ASD in their social and academic development. The recommendations from this study aim to inform future research, policy development, and educational practices, ensuring that children with ASD are given the resources and opportunities they need to succeed. By fostering an inclusive, supportive school environment, we can help children with ASD develop the social skills necessary to thrive within the classroom and the broader school community.

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ANNEXURE A – ETHICS CLEARANCE



Research Office

HUMAN RESEARCH ETHICS COMMITTEE (NON-MEDICAL)
R14/49 Alexander

CLEARANCE CERTIFICATE

PROTOCOL NUMBER: H24/01/01

PROJECT TITLE

A qualitative exploration of the socialisation adjustment of children with Autism Spectrum Disorder within a school environment

INVESTIGATOR(S)

Ms K Alexander

SCHOOL/DEPARTMENT

School of Human and Community Development/

DATE CONSIDERED

26 January 2024

DECISION OF THE COMMITTEE

Approved
Risk Level: Minimal

EXPIRY DATE

20 February 2027

DATE 18 July 2024

CHAIRPERSON

(Professor J Watermeyer)

cc: Supervisor : Dr A Kern

DECLARATION OF INVESTIGATOR(S)

To be completed in duplicate and **A SIGNED COPY** returned to the Secretary electronically. Unreported changes to the application may invalidate the clearance given by the HREC (Non-Medical)

I/We fully understand the conditions under which I am/we are authorized to carry out the abovementioned research and I/we guarantee to ensure compliance with these conditions. Should any departure be contemplated from the research procedure as approved I/we undertake to submit an amendment of the protocol to the Committee. **I/we agree to completion of a regular progress report. For Minimal and Low Risk studies, this is due annually on 31 December. For Medium and High Risk studies, this is due twice annually on 30 June and 31 December.**

Signature

18 / 07 / 2024
Date

PLEASE QUOTE THE PROTOCOL NUMBER ON ALL ENQUIRIES

ANNEXURE B – GDE APPROVAL OF RESEARCH LETTER

**GAUTENG PROVINCE**

Department: Education
REPUBLIC OF SOUTH AFRICA

8/4/4/1/2

GDE RESEARCH APPROVAL LETTER

Date:	05 February 2024
Validity of Research Approval:	08 February 2024– 30 September 2024 2024/577
Name of Researcher:	Alexander KL
Address of Researcher:	38 De Villiers ,Unit 15 Witfield / Germiston
Telephone Number:	076 383 1447
Email address:	Kathleen.alexander01@oulook.com
Research Topic:	A qualitative exploration of the socialisation adjustment of children with Autism Spectrum Disorder within a school environment.
Name of University:	Wits
Type of qualification	Masters
Number and type of schools:	Primary schools and Secondary Schools
District/s/HO	Gauteng East, Johannesburg North, Johannesburg west

Re: Approval in Respect of Request to Conduct Research

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

The following conditions apply to GDE research. The researcher may proceed with the above study subject to the conditions listed below being met. Approval may be withdrawn should any of the conditions listed below be flouted:

1

Making education a societal priority

Office of the Director: Education Research and Knowledge Management

7th Floor, 17 Simmonds Street, Johannesburg, 2001

Tel: (011) 355 0488

Email: Faith.Tshabalala@gauteng.gov.za

Website: www.education.gpg.gov.za

ANNEXURE C – SCHOOL PRINCIPAL CONSENT FORM

To whom it may concern,

My name is (name and surname) and I am the (position) at (school name and area).

I give my permission for Kathleen Alexander to conduct research at my school where she will be conducting interviews with teachers of (school name and area).

This research has been explained to me, and I understand what participation in this research will involve. I reserve the right to withdraw this permission at any time.

Kind regards,

(name and surname)

(date and signature)

ANNEXURE D – PARTICIPANT INFORMATION SHEET



Participant Information Sheet (PIS)

Dear Sir / Madam

My name is Kathleen Alexander. I am a Masters student in Psychology at the University of the Witwatersrand, Johannesburg. My supervisor is Dr Anwynne Kern. I am conducting a research study about autism and socialisation within schools in Gauteng. The study title is 'A qualitative exploration of the socialisation adjustment of children with Autism Spectrum Disorder within a school environment'.

I am inviting you to take part in a single one-on-one interview where you will be asked a set of questions about your perceptions of the children who have diagnosed with ASD's interactions with their peers. If you decide to take part, your participation in this research study will last about 45 minutes. The interview will take place on the school premises during school hours if approved by the school principal.

With your permission, I would like to audio record the interview. This data will be stored in a secure password protected folder in OneDrive and may be used for further research studies of a similar nature pending that studies ethical clearance. Only the researcher will have access to the data.

The contents of the interview will be confidential and anonymous. When I share the results of the research study, I will not include your name or anything else that could identify you.

If you decide to take part in the research study, it should be because you want to volunteer. You do not have to take part. You can stop being in the study at any time. You do not have to answer any questions if you do not want to. You will not get any direct benefits if you choose to join the research study. You will not lose any services, benefits or rights you would normally have if you decided not to join. Taking part in the research study will not cost you anything. You will not be paid for being in this research study.

The risks for this research study are no more than what happens in everyday life OR some of the questions asked may make you feel sad or upset. If this happens, I will stop the interview and continue another time.

This research study will be written up as a research report. The report will be available on the university library website. If you would like to receive a summary of this report, I will be happy to send it to you. The results may also be published in journal articles or presented at conferences.

If you have any questions during or afterwards about this research study, feel free to contact me or my supervisor on the details listed below. If you have any concerns or complaints about the ethical procedures of this research study, you are welcome to contact the University Human Research Ethics Committee (Non-Medical), telephone +27(0) 11 717 1408, email hrecnon-medical@wits.ac.za.

Yours sincerely,
Kathleen Alexander

Researcher:
Kathleen Alexander
Number: +27 76 383 1447
Email: Kathleen.Alexander01@outlook.com

Supervisor:
Dr Anwynne Kern (PhD)
Educational Psychologist
Lecturer, Department of Psychology
Email: Anwynne.Kern@wits.ac.za

ANNEXURE E – CONSENT TO PARTICIPATE

Consent Form

Title of project:

A qualitative exploration of the socialisation adjustment of children with Autism Spectrum Disorder within a school environment

Name of researcher:

Kathleen Alexander

I, ..., agree to participate in this research project.

I agree to the following:

(Please circle the relevant options below)

The research study was explained to me. I understand what this study is about.	YES	NO
--	-----	----

I understand that I can volunteer to take part in the study.	YES	NO
--	-----	----

I agree that the interview may be audio recorded.	YES	NO
---	-----	----

I agree that direct quotations from my interview may be used by the researcher in their research report.	YES	NO
--	-----	----

I agree that my participation will remain anonymous (my name or other identifying data will not be used by the researcher in their research report).	YES	NO
--	-----	----

I agree that other researchers may use the information I provide in my interview (depending on their own ethics clearance being obtained) but my name and any personal information will not be used or passed on.	YES	NO
---	-----	----

..... (signature)
 (name of participant)
 (date)

..... (signature)
 (name of researcher)
 (date)

ANNEXURE F – INTERVIEW QUESTIONS

Interview Schedule: Educators' perception of autistic child socialisation

1. Describe what a normal day for you would look like in your classroom.
2. How many children do you currently have in your classroom?
 - How many of those would you say have learning disability?
 - How many of those have ASD?
 - What is their severity level?
3. In terms of child interaction, how do you encourage the children within the classroom to engage with their peers?
 - What activities or methods do you use?
4. With regards to peer engagement, have you noticed any friendships or relationships being formed outside the classroom?
 - Elaborate on what these friendships or interactions look like.
5. What activities or skills do you use to encourage children who appear shy or reserved to open up more during lessons?
6. Do you offer individual child intervention methods for the children who are struggling to keep up with the curriculum?
 - What interventions do you use?
 - Elaborate on improvements noticed once interventions are implemented.
 - If no progress, what steps are being taken?
7. Have you noticed any improvements in communication from the children with ASD?
8. How do you approach children who seem to not show interest during lessons?
 - Are they receiving additional support after school (either at school or therapy)?

9. Have you noticed any improvements in the children when you compare their progress from the beginning of the year up to now?
 - Elaborate on what these improvements look like
10. Have you received any additional training or help from the school or governing body to assist you with children who are autistic?
 - Do you have a teaching assistant?
 - If so, do they report any problem areas that you need to assist the child with?
11. With communication skills being low for children with ASD, how do you ensure the children understand your lessons?
 - Do you provide one-on-one check-ins to those who appear to not be engaging during lessons?
12. Do you encourage socialisation through classroom discussions?
 - Do you find that these help or hinder the children due to their communication difficulties?
13. Do you find that the children tend to engage more with the lesson plan when you encourage classroom debates and discussions?
14. With regards to friendships, are the children in pairs and small groups or are they fitting into larger groups?
15. What would you say is the biggest problem you face when teaching?

ANNEXURE G – SAMPLE OF TRANSCRIPT

Interview 15 – SE P15

Interview conducted on Tuesday, 23 July 2024.

Researcher: Describe what a normal day for you would look like in your classroom.

Participant 15: Normal day. They, the learners arrive. They don't arrive at the same time. They arrive at different times. Then we greet each other. They get to play games. Usually, we play games, or we engage into conversations, one-on-one until we, they're all in, then they go to breakfast. We, we eat together on the round table. And they each day, we, we, we, we get them in, in discussions, either with the teacher or among themselves. They talk. And then we start the day by, the group session, which we call circle time. That's where we touch all the basics like greetings, date. Then each learner, according to the IEP, there are things that I know we are going to touch during this circle time. Could be counting for John. It could be time for Peter. So I asked those questions that I read in the learner's IEP. Then we finish our circle, and we'll break into the day's work. That's lessons. So lessons, we start off with the group again. Normally, I, we try it's not only like that, but we'll try to study the group where we, where, where I assign all the work to each individual learners, then they break and work on their tasks. I put 2, our assistant with me so we can break. We also divide ourselves. We do individual learners. They work with different learners, and then I go around. And obviously, there will be snack time. Then go back to work. And then, other days, they would go on outside trip where we will go out of the school and go for boxing, go for swimming. The exciting activities on each day, like, the highlight of each day. Like, Tuesday, the highlight is, is, is boxing. Wednesday, the highlight is, is, the highlight is swimming. Friday, the highlight, highlight is hiking. So all those things, we, we mentioned them during the circle time. On those days, we prepare for those trips, after our work. So our work, when you say work, it's the work that they understand better. Now we're doing work, but the timetable will be spelling out that it's time for numeracy, it's time for the language, it's time for life skills. There are people coming in as well during their lessons. There are good people coming for coping skills and good people coming on for social skills. And then the learners go out-, also go to therapies at different times. Others go to OT, others go to speech therapies at different times. You know? And then the last session of the day will be, again, group work where we sort of round up the day. Slowly. Usually, play board games together. Play board games or group games or other play individual games. We are now going to, be packing up. Then transport arrangements are made, and they leave. Also, they don't leave at the same time. Others, they get picked up, others go by a school bus.

Researcher: OK

Participant 15: So that would be my, my, my day. And then, obviously, when they're all gone, then I'll go back to the, my own planning for the next day (laughs). see what went wrong, what went-, what worked and what didn't work.

Researcher: OK

Participant 15: Ja. We plan time for next day. Yes.

Researcher: OK

Participant 15: That's basically last day.

Researcher: Perfect. Thank you.

Researcher: And how many children do you currently have in your classroom?

Participant 15: I've got 8.

Researcher: 8 kids. Okay. And how many of those would you say have a learning disability?

Participant 15: A learning disability? I would say all of them.

Researcher: All of them. Ok.

Participant 15: Their, their, their disability range, they differ. Each one's got a unique (laughs) situation or unique condition. But they all have something that will need attention.

Researcher: And how many of those are autistic?

Participant 15: Ja, that's (pause). There's one that I know who's diagnosis, is not yet a certain who has autism or, or brain damage or but according to the history, the child was born fine. A slight complication with the hospital, assumed the child was Ok (inaudible). So that learner, they're still not sure there's autism or any, the learner is non-verbal. And, we strive to communicate. So he's got some characteristics of, of, autistic, but according to, a scientific diagnosis, there's no confirmation to that.

Researcher: Okay.

Participant 15: Yeah. But it the old others, several of them, they're autistic.

Researcher: Okay.

Participant 15: With the diagnostic record. Let's say so.

Researcher: Okay. And what is the severity level for the ones who are autistic?

Participant 15: What? Sorry?

Researcher: The severity levels. So obviously you have the low, the medium, and the high.

Participant 15: Ja

Researcher: Like, so what severity level are they?

Participant 15: Ja, that's right. I put high. I would say high or high support.

Researcher: Mhmm.

Participant 15: High support and with that learner is restless and nonverbal, aggressive. I mean, like, for me to come here, I need to seek help from another class. Come and assist. So I'll say one is high support and then, that's one. So, it's up to seven. The other don't say they're moderate. They're moderate. And, also, I was, we classify them like that, that it would be a question with (pause). Each day differs, I mean, on one day, they come in, they're high, or next day, they are, fine. And somehow on medications, some more behavioural, strategy, which is so I don't know what works. I represent at the moment. I'll classify, for example, Moshathe, he's, medium, but you will feel they classify him on high most of the time. So, but in my class, it's classified as a medium however. Say for this one learner that is (pause).

Researcher: That's a lot lower.

Participant 15: That's, ja.

Researcher: Ja, Okay.

Researcher: In terms of child interaction, how do you encourage children within your classroom to engage more with their peers?

Participant 15: With their peers. Like, we, we engage them in conversation, like, like, conversations. Basically conversations. Greetings, (pause) where I'll greet them, and they, they each, I encourage them to stand up to greet. Even those who are non-verbal, you know, use their device, like, an iPad to say hello, or to shake hands, or high five. And, that is one way. With games, with games that they can play on their own, they've got games that they can play in pairs. There are group games. So those things that I think they encourage interaction. Yes.

Researcher: Ok

Participant 15: The, the, the games. And, also, there are learners who their level of coping is sort of close to each other where they can work together.

I will say, "Jake, you're done with your typing, do you mind helping with Bhuti? For example, who does not know how to move the curser, and then you can help me. Or they can play a game on the computer together. So, that sort of interaction. With reading, with library time, where they use the keyboard to play games on the computer. Some games allow them to play in twos. Some of the games are like, there's a team A, team B, and then, one learner will be putting in the correct answers they call out. It's a co-operative process. That's also a group session. So it could be group session, it could be a pair work. All those things, I think, they encourage, but there's still, there are some who wander, wander away, and find them still there alone (laughs). You think they are together, before you know it, he's alone. So, he's still doing bad. And, and they still wanted to be alone. Some more than others. Also, there's outdoor play, with a session for outdoor play where they also play games again outside. Jumping on the trampoline, climbing the gym, or group games. Like, a red light, red light. Stop go, stop go, left and right, where we play as a class. Then we let them play on their own and see who's, who, who is friends with who. Now I know them. Peter is the friend to, to John. They'll, they will find each other. We try to discourage that again, to say don't play with one person. Because when that person is absent, then they don't want to do anything. It affects the whole day.

Researcher: Yes.

Participant 15: So we try to say, we let them choose their own friends, play, but we ask them to change. Play with someone else. So that helps, you know, to help them engage or interact.

Researcher: Okay.

Participant 15: Also, on birthdays, when there's, with the birthday chart, when someone's got a birthday, all encourage, go say something. It's nice to share. If you don't want to share, but you can sing for him. You see? So they know their birthdays. They can group together and make time for the day celebration too. Now I sing for someone's special day. And, some

get invited to other classes on the birthday, you know, they're the friend. My friend has a birthday today. So, so do their interaction within the class, the interaction within the school. So that's my classes.

Researcher: OK.

Participant 15: So that day, those are how they interact. If sometimes we talk to parents, they bring a, a cake or cup cakes or something that can be shared together. Obviously, food in front of kids, there's a lot of talking (laughs).

Researcher: Ja

Participant 15: Ja. They, they, they, they interrupt. But there's some who don't want to share.

Researcher: Ok.

Participant 15: My cake is my cake (laughs).

Researcher: Yes (laughs).

Participant 15: Ja

Researcher: K. And then with regards to peer engagement, have you noticed any friendships or relationships being formed outside of the classroom?

Participant 15: Definitely, yes.

That's why I'm saying some learners getting invited into other classes birthday sessions.

Researcher: Yes.

Participant 15: They'll say, we want so and so. Not to go, not everybody. And maybe the ones remaining will get angry, but we, we, we don't take that as a teaching error, opportunity. You know? He's going to his friends' birthday. He's coming back. So, and even if I, I think we would, our play centre allows only two classes at a time. So we've seen them play with other learners from other classes. And when we go for hiking, I think I've got four classes who go for hiking at the same time. We've seen them, my friend, other learners not in their classes. And we've heard of play dates being arranged by parents coming to talk. They would have heard the learner talk about Oscar and they come to you, "who is this Oscar? My child is asking about Oscar". And then we offer for them to arrange a play date. So we've got some who are, who go for play dates. So I think, ja, there are, some are friends outside their class. Also, they are.

Researcher: And then what activities or skills do you use to encourage children who appear shy or reserved to open up more during lesson?

Participant 15: What, what I don't, I don't know what skills.

Researcher: Yes, what skills do you do you use to make the kids, open up more and engage?

Participant 15: Yes. Yes. Ja, I've got a lot of strategies. Some work, some don't. Like, questioning. Questioning, where I'll ask questions. If the child is shy, I'll go to one-on-one question-answer sessions, or some will be free with me. Some will be free with another

teacher. So if you child not free with me, I'll go to, like, put them with a lady in class. So, there are some learners, I've noted, they talk to, to a lady teacher than talk to a male teacher. And questioning also encourages them to (inaudible). The normal for a learner is thinking, saying are you angry? Are you happy? Also, another strategy is the picture stories where there are pictures, and then we ask questions. It's, it's quite great questions. "So what do you think's happening here?" They talk about the pictures in front of them. Or sometimes we have reading sessions where we'll ask one of them to read the whole book, or the teacher reading the whole book. And as you read, you try to sort of, what do I, what do I. "Where are you going now?" Model what is happening. Raise the voice.

Researcher: Mhmm.

Participant 15: So to model what you are reading about. And then they, they also ask questions. So those who are shy, sometimes they open up while, when you read it. And then, then, sometimes they'll ask you to, when it's the next day, to continue the story. When you've aroused their interests, you say, "Ok, you're not finishing today". We'll end here. I'm putting a mark, a bookmark. We'll end here. We'll continue tomorrow. And then try to pretend that we forgot about it tomorrow and then they will remember it. Or movies, sometimes we, we have movies. Where we watch a movie together. We try as much as possible to get those movies that are related to what we talked about in class. What was about washing hand, about senses. Then watch it together, and then we talk about it. We also have CDs, songs, rhymes. And, some of them, those are, shall you hear them singing along. Or imitating what they have been saying on the CD. They try to sing the songs alone. So that was the most best thing. Especially when they are not open. We just play the song, they open up.

Researcher: Alright (long pause). And then do you offer individual child intervention methods for those who are struggling to keep up with the curriculum?

Participant 15: Definitely. Definitely. Definitely. We try to adapt the curriculum as much as possible to suit the level or the disability that we are working with. Because we you have with the, the card that, the curriculum itself is, is, is adapted to learner's disability. But still, you find out when you use it, rule is it, it doesn't suit them. So you, you adapt it more to suit that particular learner. And we even try to classify them according to academic ages. You see, when you go with grade R, grade 1, grade 2, grade 3, in my classes, 8 of them are not in the same sort of grade.

Researcher: Yes, ok.

Participant 15: So we, we really try to assess them and say this one can use this. You know? Can be this level. You know? So these are good with grade R. You guys are good with the one. You can get one in mathematics, numeracy, but find that when we come to reading, it's at a different level again. So we continuously adapt material. I know there's CAPS curriculum as well. That one is, is not adapted, but the, the CAPS one is adapted. But still, it doesn't, we can't use it as it is.

Researcher: Hmm, Ok.

Participant 15: That's what I'm trying to say.

Researcher: Yes. And have you noticed, any improvements in communication for those children who have autism?

Participant 15: For those who?

Researcher: Those who have autism. Have you been noticing improvements in their communication?

Participant 15: Definitely, a lot. A lot. Even really, what, what, what if we'll see that a time with parents where we invite parents to the school, see if they can have a, as a team or the these educators, therapies, go build a team. Then we sit and make feedback to parents. What they're seeing at the home and what we're seeing at the school. Trying to reconcile the kids. We have noticed differences. We notice improvements and parents; they got knowledge in that as well. In terms of, could be one way communication, it could be two-way, it could be well, we also combine Makaton, using sign language. So we've tried to involve parents into those strategies that we use. And we get feedback from parents who are going to say they can see their children doing something different.

Researcher: Mhmm.

Participant 15: They can and say, you want to go to toilet. We, we, we do toilet training. We do communication. So just, like washing hands, table manners, grooming up, and arranging the table, dressing. I mean, all those things that we, we do at school. Like, at the beginning of the year or term, we agree on a program. So when we see to evaluate, we'll evaluate according to the IEP, Individual Education Program model. So, ja, we have noticed progress. Definitely (laughs).

Researcher: And then how do you approach children who seem to not show interest in your lessons? (18 min 40 sec)

Participant 15: Sjoe, ja. There are, there are those (laughs). We're got those in class. We try to change strategies. The, in the beginning, I said some tragedy were, where after school, you sit down and say, this was a bad day in office. Everything I had didn't work. "So how else can we approach this?", and we change strategy. Had a change material, change sequence of materials in the way you are sequencing material or change the approach altogether. If you had talked through question and answer, then maybe we might try to do games. Get them in a, uhm, to use games. Either by a game or either by play. Yes. Or if they were, you ask them to write and fill in a copy, they're going to begin tracing. The dotted line where they'll be tracing. Or uhm, already completed things. Been doing the alphabet. Doing the alphabet in full when they'll be tracing underneath with them seeing the completed thing or (inaudible). There's a process when changing strategy to see this thing didn't work. And, and, also we, we sit as a school as well, and we share ideas. Say, "did that work in my class? How else can it be done?" We share ideas, either during tea or during meetings. And it also allows sharing because these learners remember, they move from class to class.

Researcher: Yes.

Participant 15: So we know that he was at the, teacher A, now he's at teacher B. Is there regressing or is there improvement? Is it some behaviour that are unique that they try to interact? So how are you doing it?

Researcher: Ok.

Participant 15: Ja

Researcher: Are they receiving any support after school, like, in terms of therapy?

Participant 15: There is some therapy during the day. Throughout the day, they've got therapy got, is on the timetable. So, I'm taking Peter at 9 to 9:30. And, at home, I know some who also have some support at home. Like, extra tutor when they're at home. Or some resource person working with them at home. But the, the support that I can talk about it is done in the school.

Where, with IP, I mean, OTs, your speech therapies, and the resource person. People coming in here to do games.

Researcher: Mhmm.

Participant 15: A resource person having to coming in to do boxing and, you know, a skill that can be used to teach other skills as well. In boxing, it, it, it's interaction, discipline, all those things.

Researcher: Mhmm. Ok.

Participant 15: Even swimming. Ja. Those are the kind of support that we-. So, it's not only a teacher, class teacher that, it's a big team.

Researcher: Have you noticed any improvements in the children when you compare their programs from the beginning of the year up until now?

Participant 15: Yes. Yes.

Researcher: And what does that look like?

Participant 15: I would say, sort of introvert, at first, not outgoing or overreacting. In my case, I start doing something like prayer for, for instance, so, so my, my kids has been, I did what I've been measuring from where I started. And, when you walk in, you, you teach and then take a look closer. And so up to now, I'm seeing them opening up. And parents are also talking about that. So even when you give them a task, you know, some learners who, who will say do this task, then they do while you're waiting there with the prompts. We'll move to the next learner, and they wait for you again. So now I've got learners who will finish the task, but maybe I did a, a target and lets say, after I do this, you can play a game. Or if you're tired, you can tell me you want to rest. So we've got learners who really work throughout the worksheet, finish their tasks. I've got learners who are refusing entirely to do their worksheet. They used to ask me, hey, when you start the work with music, "how many worksheets today?" (laughs). So for me, we change from a number of worksheets to just a day's work. So this is today's work. We're not we're not counting the worksheets. We're just doing today's work. So it takes time to get that, but I'm seeing them adapting to my approach I'm using. Some, some of the changes are positive really.

Researcher: Have you received any additional training or help from the school or governing body to assist you with the children who are autistic?

Participant 15: Yes. Yes. For instance, especially, teacher or training, special needs, where my course involves teaching learners who are blind, learners who are, like conditions like, cerebral palsy, autism, Down's Syndrome, and the like, and then as we are hard of hearing. But I didn't know anything about Makaton science. So we, we had a workshop. I didn't know. We already had 2 workshops on sign language, and they called Makaton. It's not it's not really sign language, it's Makaton Language. So now I'm combining my verbal prompts, my verbal strategy with science. And we also have some workshops on using the Smartboard. Smartboard. We're using Smartboard for teaching. So, ja, there is support. There is support. I would say there is support. And, also, even the tablet themselves, the laptops themselves. Those resources are school resources. That's in place by their support. Without those, those learners who are non-verbal can't communicate anymore. There are some learners who can afford the iPads, some who cannot afford, so they use the school.

Researcher: Yes

Participant 15: So we have iPads that belong to the school or iPads that belong to the learners. And to use those in our teaching, I'll say, we, we, we, we get trained. We get a lecture here at school.

Researcher: Ok.

Researcher: Do you have a teaching assistant?

Participant 15: I've got 3. I've got 2.

Researcher: 3. 2.

Participant 15: Yes.

Researcher: Ok.

Participant 15: So for these 8 learners who are 3 in class, the staff and 2 assistant, then they sometimes we're stretched to the limit (laughs).

Researcher: And if they notice anything that's happened with the children, do they bring it to your attention?

Participant 15: Still do. Yes. They do. And, also (pause), it, it's, it's also a class team where you will say, "guys, this is how we're going to work". You agree on how they can contact each other and how you can make your role complement each other. So, see, "if you see any behaviour, attendees, please alert me. I'm working with this learner, and you're working with this learner". After everything is done, then we discuss, how did it go. Either after school or after that lesson.

So it's, it's, it's, it's an open culture that gets cultivated, and all we are sleeping humans (laughs). The weakness is there, and some will be efficient, others won't be efficient. But, ja, we help each other.

Researcher: Ok.

Researcher: With communication skills being low for children who have autism, how do you ensure the children understand your lessons?

Participant 15: (pause) With which learners?

Researcher: So with communication skills being low for children who have autism, how do you ensure that they understand your lessons?

Participant 15: Yes. Like I said, it's different strategy. Like, if you go one-on-one, then on, on, on, on, one, on, one-on-one, you can tell whether you are connected or not. And we use things like, facial, signs, whether they're nodding their head, they're smiling. But that can only happen when you, even if it's a group session, you look at them, their faces, and then look one by one. If I'm talking to John as a group, I'm looking at him. Like, sort of, there are nonverbal cues that you can see in the learners saying we are together. Even if the learner is non-verbal. So that, you encourage them to use a thumb, to encourage them to sort of respond, to acknowledge what they're saying. And also, in the performance of the task and the responses, if you give instruction, they respond. So, if they respond positively, it could be classified as a sign of understanding (laughs).

Researcher: Ok.

Researcher: And then and you do provide one-on-ones with the children where needed?

Participant 15: Definitely. Ja. Definitely. Like I said, there's a group session, and then we go one-on-one. And one-on-one is like, I'm assigning. I'm the one who assigns. So, assistant A, you work with the John on this task, and you work with those. Then you'll be divide. But still, I've got to go to those three others I've assigned to, to-.

Researcher: To help

Participant 15: Ja, to help. And also to see the performance (pause). So there is a session for all of them to work with me (long pause).

Researcher: Do you encourage socialization through classroom discussions?

Participant 15: Social?

Researcher: Socialization. Do you encourage it through classroom discussions?

Participant 15: Yes, a lot. That's what I'm saying, We, where they play, learners who arrange playdates. You know, if you've got learners who like, during the time, I say it during circle time, we will ask about, how is the weekend. On the weekend, what did you do? What did you eat? What did you enjoy? What were the ups and downs? Could be a weekend. Could be a holiday. And they get to listen to what others think. And maybe they can also plan their weekend. They can copy. I mean, they can tell their parents so and so went-. Like, we've got this learner who said they went to the farm. Gone to a farm and all that and they all want to go to the farm. His friends want to go to a farm. So that's socialisation where it is doing what others are doing.

Researcher: Mhmm.

Participant 15: And, also (pause), show and tell. Where you bring, plus something that you will, like it or play with it at home. What do you enjoy playing with? It could be a toy. It could be a pet. I will not bring pets, but they see, they still talk about their pets. But they like toys (small pause), gifts. Those who are verbal, they, they tell the class what their toy is,

where they got it from. But we struggle with those who are nonverbal who can't explain what their weekend was like. (long pause) And, also, the, the iPad that we use for communication, you, it will be limited to, to the grid that you created. So it doesn't have all the vocabulary. And the, my experience is those are the ones who throw tantrums or be restless and (pause). And, and the feeling that they will be (pause), it's a, a lot to tell and you can't tell. And then they exhibit these behaviours, which we see.

Researcher: Ja. Makes sense.

Researcher: And then do you find and then do you find that the children tend to engage more with the lesson plan when you encourage classroom debates or discussions?

Participant 15: As compared to region or?

Researcher: Yes.

Participant 15: Ja, I'm, I, I, I will say yes. And but I'll say, like, any children, they, they, they, they, they like to talk and explain to them in gaps and playing, talking in class. As comments to work on, on, a, on a worksheet, and then call you to work. They don't want to anymore (laughs). They will give the, any excuses not to do a worksheet on the paper. I, I think the discussions are more lively. And even if you go open it to one-on-one, the child gets to open up more. And they are not left out on, on technology, by the way. Anything that you work with, you're using technology, like devices. Either on the phone. Phone were banned, because they get, they get broken, then we get in trouble with parents. So we use school computers, the school iPads.

Researcher: Ok.

Participant 15: So during those sessions, they, they, they, they get to engage more. Like, now I came with you, they're going for smartboard. They've got games that we can compete as a class on this smartboard. So it's a, it's a, it's a very noisy session (laughs). And during that noisy session, you get to know this student even more. With some of them, even the non-verbal, they join in. My team wants to wait. So I think discussions really fair better than, individual tasks.

Researcher: And then with regards to friendships, are the children fitting into pairs and smaller groups, or they're fitting into a much larger group?

Participant 15: I think they fit into smaller groups. Pairs or smaller groups. The larger groups, are a little difficult. I think that is why at the school, we need to see only two classes with the play circle. Because if there are more than 2 classes that we spend most of our time circling these kids (laughs).

They will be at each other's necks, and some of them will hide in corners. And, so I, I would, I would think they would prefer smaller groups. Especially like pairs.

Researcher: Ja.

Participant 15: Groups. Very small groups. They did, what they, what, what's common amongst them, they always want to be alone at some point. As much as you're gonna, if

they're gonna have friendship as pairs, as small groups, they will always be. Before you know it, he will be not there. You look for him, he's somewhere.

Researcher: Mhmm.

Participant 15: Playing with a small toy, sitting with it. (long pause) So that's how we always try to make, to follow them around. So, you know, what they're doing now, they're going to enjoy others company. So it's pair work, with the smaller groups. Better than larger groups.

Researcher: Mhmm. Ok.

Researcher: And what would you say is the biggest problem that you face when you're teaching?

Participant 15: My biggest problem is the, the different levels that you have in class. It, it, it is regards to, or what, what do I use? Let, let us say the, the one learner was restless, noisy. I've got those who are non-verbal, noisy, and they still didn't want to listen. So you don't want to take the noisy one out. She's still wants to get them as a group, and the other learners get annoyed by that noise. You want to teach these learners who want noisy to be tolerant. That's the biggest challenge I have to say. To what extent would they tolerate this?

Research: Mhmm.

Participant 15: There are learners who, who continually disturb others. That depends right away. Mhmm. I mean, that's my, my biggest problem at the moment. We have them with, I, I, I value group sessions where I have them together as a group. Of course, they'll be dispersing to individual learning, learning areas. But that group sessions get disturbed by the different, behavioural tendency of these learners. Since some are violent, some throw things. And they go throw things, and either they'll, either there will be damaged to devices or expose dangers to other learners. So that's my biggest challenge at the moment.

Researcher: Ok. That's it. Thank you.

Participant 15: Cool.

ANNEXURE H - EXAMPLE OF CODING

CASES: Interview 15, Interview 16, Interview 3, Interview 4, Interview 6, Interview 7

DOCUMENTS: DOCUMENT

VARIABLES: FILE Interview 7, DOCUMENT [DOCUMENT]

CODES:

- Factors affecting the children's
 - Behaviours
 - Environmental factors
 - Improvements
 - Routine
 - Severity level
- Impact of support provided by
 - Education
 - Group work / tasks
 - Support
 - Taking Instruction
 - Teacher resources / Aid
 - Therapy
- Socialisation and interactions
 - Communication
 - Friendships
 - Working together

Text:

Participant 7: Ja. Her brain also, it stimulates it. We're getting them more engaged. OK. And then we get into, we get into the Crickets. Crickets, um (pause), I don't know whether I should say, I, I cannot say they're in the middle. They also like, they're better. They're not really. They do get assistance. Mpho walks. Leah also walks. Connor also walks. Likhona is on a wheelchair and Tsephe is on a wheelchair. And then another thing here, we've got, um (pause), Likhona went for an operation. And then she was normal. And then, I don't know what happened at Netcare. So, her brain got damaged. So that's why she's paralysed. But she's very intelligent. The brain is still working fine, but she cannot speak. She's non-verbal.

Researcher: OK

Participant 7: Ja, but she's very happy to do activities. To see things. She, she, they let you know. When we communicate with them, they communicate very well. They'll let you know if they want something. If they want something in the fridge, they are going to pull your hand. If they want water, they'll show you. They will show you signs, hand signs. If they want to go to the toilet, it's the sign. We know that he or she wants to go in the toilet. What we also do for these ones, we do sensory for them.

Researcher: OK

Participant 7: Ja, we do sensory. It's mainly, they do the same activities with the Leaves.

Researcher: OK

Participant 7: Ok. Then it's the, no. Then it's this. It's the Oaks.

Researcher: Oaks

Participant 7: With the oaks, they, um, most of them (pause), non-verbal.

Researcher: OK

Participant 7: Ja. They put together their nonverbal and they, um, self-harm. They, they, ja. They hit themselves. They, they get very irritated. They, they want to be alone in their own corner and they (pause).

Researcher: Easily frustrated.

Participant 7: Ja, a lot. And I just want this. If they want to go. They want to, they want to be out there. They don't want to be kept in, in a bottle.

Researcher: Yes, OK

Participant 7: Ja. They want to be busy. They want to be out. So they do activities. They cope very well. Ja, they come very well. Except for, for Peter. Except for Alwethu. They, they cannot and they're not interested. But he's changed his meds. I seen a huge difference. We tried painting last week. He joined us. Ja.

Researcher: That's nice.

Legend:

- Behaviours
- Communication
- Severity level
- Behaviours
- Environmental factors
- Group work / tasks
- Working together
- Improvements

ANNEXURE I – DECLARATION

This serves to confirm that I, Kathleen Leigh Alexander, ID 9206030996080, with student number 534493, registered for the Master of Arts in Psychology by Dissertation program in the Faculty of Humanities, hereby confirm that this academic research report complies with the University of Witwatersrand's policies on academic integrity and plagiarism.

I confirm that this research paper titled "*A qualitative exploration of the socialisation adjustment of children with Autism Spectrum Disorder within a school environment*" is my own work, which has been carried out under the supervision of Dr Anwynne Kern. This work has not been previously submitted for another degree or qualification. All sources in this paper have been acknowledged and referenced, and do not infringe on anyone's copyright. Additionally, I confirm that no unethical research practices were used, and all material gathered was obtained through honest and transparent methods free from any form of deception.

Signed at: Marlands, Germiston	Date: 09/03/2025
Signature: 	Print Name: Kathleen Leigh Alexander