Challenges faced by teachers when teaching learners with Autistic Spectrum Disorder in Special Schools in the Capricorn District, Limpopo Province

BY-

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DEDICATION

I dedicate this Mini- Dissertation to my late mother, Masera Agnes Monama for her words of encouragement during my lowest moments in my academic journey; My brother in-law, Dr MLI Mashitisho for always encouraging me to study further; and my husband, Mr Khomotso Ralebapa for his unwavering support and encouragement.

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- My husband, Khomotso and my daughter, Tumisho for the support they gave me throughout the process.

DECLARATION

I declare that ‘Challenges faced by teachers when teaching learners with Autistic Spectrum Disorder in Special Schools in Capricorn District, Limpopo Province’ is my own work, that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references, and that this work has not been submitted before for any other degree at any other institution.

Ralebapa Keorapetse Linda		15 September 2025
Full names	Signature	Date

LIST OF ABBREVIATIONS

ASD- Autistic Spectrum Disorder

DoE- Department of Education

EWP6 – Education White Paper 6

ICT- Information Communication Technologies

IDEA- Individuals with Disabilities Education Act

NGO- Non-Government Organisation

LDoE- Limpopo Department of Education

LMIC's- Low- and Middle-Income Countries

SIAS- Screening Identification Assessment and Support

SID- Severe Intellectual Disability

SSA- Sub-Saharan Africa

WHO- World Health Organisation

ABSTRACT

Background: The aim of this study is to determine challenges faced by teachers when teaching learners with Autistic Spectrum Disorder in Special Schools in Capricorn District, Limpopo Province.

Objectives: The study explored and described the challenges faced by the teachers when teaching learners with Autistic Spectrum Disorder in Special Schools in Capricorn District, Limpopo Province.

Methods: A qualitative descriptive phenomenological approach was used to conduct face-to-face semi-structured interviews with 15 teachers to determine the challenges they are faced with when teaching learners with ASD. Data was analysed thematically.

Results: Three (3) themes and seven (7) sub-themes emerged from the study, which also discussed measures to ensure trustworthiness as well as ethical considerations**.** Teachers of learners with ASD are faced with challenges relating to uncooperative parents; shortage of staff, classrooms and educational materials; and lack of knowledge and skills to teach the learners.

Conclusion: Teachers of learners with ASD encounter various challenges that impact learners' educational outcomes. These provide future opportunities for further research in this area about possible intervention and adjustment of policies regarding the education of learners with ASD.

Keywords: Teachers, Autism Spectrum Disorder, teaching, challenges, learners.

DEFINITION OF CONCEPTS

Teacher- means any person who teaches, educates or trains other persons at an education institution, or assists in rendering education services or education auxiliary or support services provided by or in an education department (National Education Policy Act No. 27 of 1996). In this study, a teacher will mean any person who teaches learners with Autistic Spectrum Disorder in Special Schools in Capricorn District, Limpopo Province.

Special School- is a set of services provided to students who experience exceptional learning needs according to Policy on White Paper 6 (DoE, 2023). In this study, a special school means a school for learners with Autistic Spectrum Disorder.

District-based support team- is a trans-disciplinary team that has representation from several units in the district, such as ECD, Curriculum, Institutional Development/Education Management and Governance, ABET, Teacher Development and Inclusive Education (DoE, 2023)**.** In this study, DBST refers to speech-language therapists, physiotherapists, educational psychologists, occupational therapists and senior education specialists.

Learner - means any person receiving education or obliged to receive education in terms of the SASA Act (DoE, 2023). In this study, a learner refers to one with ASD.

Collaboration- is an effective tool that allows general educators, special educators, learning specialists, administrators and other stakeholders to work together to meet the needs of students (DoE, 2018). In this study, collaboration refers to collaboration between teachers of learners with autistic spectrum disorder.

Resources- This refers to devices that are designed or adapted to assist a learner in performing a particular educational task. Resources are intended to compensate for any form of functional limitation that makes it difficult for a learner with disability to access the curriculum (DoE, 2018). In this study, resources refer to learning tools for learners with autism spectrum disorders

Table of Contents

DEDICATION ii
ACKNOLEDGEMENTS iii
LIST OF ABBREVIATIONS v
ABSTRACT vi
CHAPTER 1: OVERVIEW OF THE RESEARCH STUDY 1
1.1. INTRODUCTION AND BACKGROUND 1
1.2. RESEARCH PROBLEM 3
1.3. PURPOSE OF THE STUDY 3
1.3.1. Aim of the study 3
1.3.2. Objectives of the study were: 4
1.4. RESEARCH QUESTION 4
1.5. LITERATURE REVIEW 4
1.6. RESEARCH METHODOLOGY 4
1.6.1. Study Site 4
1.6.2. Research design 4
1.6.3 Population and Sampling 5
1.6.4 Data collection 5
1.6.5. Data Analysis 5
1.7. Ethical Considerations 5
1.7.1. Ethical Clearance 5
1.9. CONCLUSION 5
CHAPTER 2: LITERATURE REVIEW 7
2.1. Introduction 7
2.2. The Prevalence of ASD among children 7
2.3. Legislation on Education for ASD 8
2.4. Challenges faced by teachers teaching learners with Autism Spectrum Disorder 9
2.4.1. Teachers' knowledge about ASD and lack of training 9
2.4.2. Availability of resources for learning 11
2.4.3. Collaboration amongst teachers teaching learners with ASD. 12
2.5. Conclusion 13
CHAPTER 3: RESEARCH METHODOLOGY 14
3.1. Introduction 14

3.2. Research approach 14
3.3. Research design 14
3.4. Study Site 14
3.5. Population and Sampling 15
3.5.1. Inclusion criteria 15
3.5.2. Exclusion Criteria 15
3.6. Recruitment of participants 15
3.7. Pilot Study 16
3.8. Data collection 16
3.8. Data Management 16
3.9. Data Analysis 16
3.10. Measures to ensure Trustworthiness 17
3.10.1. Credibility 17
3.10.2. Dependability 18
3.10.3. Transferability 18
3.10.4. Confirmability 18
3.11. Ethical Consideration 19
3.11.1. Ethical Clearance 19
3.11.2. Permission to conduct the study 19
3.11.3. Informed Consent 19
3.11.5. Respect, dignity and standard of care. 20
3.11.6. Harm 20
3.11.7. Psychological risks that might arise during the study. 20
3.12. Conclusion 20
CHAPTER 4: PRESENTATION AND DISCUSSION OF THE RESULTS 21
4.1. Introduction 21
4.2. Characteristics of the Participants 21
4.3. Summary of Themes and Sub-Themes Reflecting the Findings from Interviews 22
Theme 1: Parents are not involved in their children's learning process 22
Theme 2: Teachers lack understanding on special needs education. 25
Theme 3: SHORTAGE OF RESOURCES 29
4.4. Conclusion 32
CHAPTER 5: SUMMARY, CONCLUSION, LIMITATION AND RECOMMENDATIONS 33

5.1. Introduction 33
5.2. Aim of the study 33
5.3. Objectives of the study were 33
5.4. Summary of the findings 33
5.5. Conclusion 35
5.6. Limitations 35
5.7. Recommendations 35
9. REFERENCES 37
10. APPENDICES 44
10.1. Appendix A: Time frame 44
10.3. Appendix C: Consent Form 45
10.4. Appendix D: Semi-Structured Interview Schedule 49
10.5. Appendix E: TREC ethics clearance certificate 50
10.6. Appendix F: Request for Permission 51
10.7. Appendix G: Permission from Limpopo Department of Education 52
10.8. Appendix H: Examples of Transcripts as Narrated Verbatim by Participants 53
10.9. Co-Coder Certificate 61
10.10. Editorial Letter 62

CHAPTER 1: OVERVIEW OF THE RESEARCH STUDY

1.1. INTRODUCTION AND BACKGROUND

Autism Spectrum Disorder (ASD) is a neurodevelopmental disorder displayed by difficulty to communicate and interact with people in different contexts and constricted repetitive patterns of behaviour, interests or activities; its onset occur within the early years of development (Rakap, Balikci & Kalkan, 2018). ASD is a life-long condition which has implications for education, social development, social interaction and social integration (Numisi, Themane, Nel & Govender, 2020). It may occur with other comorbidities such as developmental delay and intellectual disability, and symptoms may range from severe impairment to mild delay (Acar, Chen & Xie, 2021).

The exact causes of ASD are not known; however, there is a connection between autism and genetic, environmental predispositions or medical problems. The occurrence of ASD is linked to atypical brain structure and function (Rakap et al., 2018), and can be diagnosed during infancy and childhood using data and information drawn from multiple resources such as psychological, educational, developmental tests, behaviour observations, interventions with caregivers and family members (Viviers, Jongh, Dickonson, Malan & Pike, 2020; Rakap et al., 2018).

Educating children with ASD is challenging, especially when they have developmental delays (Numisi et al., 2020). Learners with ASD are described as the most challenging group for teachers as they come with diverse needs, goals and learning outcomes (Love, Findley, Ruble & McGrew, 2020). They struggle with initiating conversations, respond appropriately to the conversational turns, and show comprehension towards others' emotional state or facial expressions (Padmadewi & Artini, 2017). Their cognitive and social difficulties make it challenging for teachers (Numisi et al., 2020) as these skills are important for successful academic achievement, self-worth and the formation and maintenance of friendships (Leifler, 2020). Some of the numerous challenges faced by teachers are disruptive behaviour, increased workload, lack of ability to complete given work and poor academic achievement posed by these

learners. Learners with ASD require ample attention and care until they have developed a level of self-independence (Yoro, Fourie & Van Der Merwe, 2020).

Globally, there is an increase in the numbers of recorded cases of ASD while the true prevalence figures are still a challenge in developing countries (Onaolapo & Onaolapo, 2017). The reason for this increase is attributed to changes in the diagnostic criteria and the work done to create education and awareness in the society. Professional training on ASD improved early identification (Altay, 2019). While ASD affects up to 10 in 1000 children worldwide (Alsehemi, Abousaadah, Sairafi & Jan 2017), there is an incident increase of 1 in 50 to 68 children (Altay, 2019). The available data on the prevalence of ASD in Sub-Saharan countries is drawn from Nigeria and Uganda (Naidoo & Singh, 2018). In low-income countries like South Africa, scarcity of data may be accounted for by limited epidemiological studies on ASD (Heslop & Mophosho, 2021).

The Individuals with Disabilities Education Act (IDEA) (2017) is aimed to ensure that all children with disabilities receive free and quality education in an inclusive environment and are provided with services to encourage independence. There are assessment requirements for these learners and tools to be used by teachers to ensure that they meet positive educational outcomes (Jaffal, 2022). The Education White Paper 6 (EWP 6) and the National Strategy on Screening, Identification, Assessment and Support (SIAS) policies acknowledge the diverse learning needs of children (Department of Education, 2001; Department of Education, 2008). These policies are aimed at the provision of quality education in a system that respects the uniqueness of each learner (Numisi et al., 2020).

Teachers' skills and abilities are critical for learners with ASD's educational outcomes (Love et al., 2020). Lack of adequate training amongst teachers in specialised education, inadequate support from key stakeholders, limited educational materials and a heavy workload for the teachers impact their efficacy fulfil the educational outcomes of learners with ASD (Abubakar, Gona, Kipkemoi & Newton, 2022). Lack of collaboration amongst teachers within special needs education is also a challenge for the successful implementation of interventions aimed at addressing the needs of learners with ASD (Jaffal, 2022).

Since there is lack of improvement with their language, social interaction, and repetitive behaviour amongst learners with ASD in special schools in Capricorn District in Limpopo, the researcher would like to find out challenges faced by teachers when they teach these learners.

1.2. RESEARCH PROBLEM

The researcher, who is a speech therapist, works with teachers in nine (09) special schools that enrol learners with ASD, and is part of a district-based support team in Capricorn District comprising a speech therapist, occupational therapist, physiotherapist, educational psychologist and education specialist. Some of the roles of the researcher is to assess learners' performance by reviewing their baseline assessments, observation recording tools and term report cards. During school visits and learner assessments, it was discovered that learners with ASD do not show improvement regarding their language and communication, social interaction and repetitive behaviour. If these challenges are not addressed at an early stage, they could affect learners' way of life as they grow into adulthood.

Most of the teachers that are interviewed after assessing learners with ASD indicate that they do not have skills to deal with these learners. Teaching these learners without adequate knowledge and skills, limited resources, poor collaboration amongst teachers and inadequate training contribute to a challenging experience for teachers (Graham, 2021). Teachers who teach learners with ASD should possess certain qualifications and skills. The researcher would like to find out challenges faced by teachers when teaching learners with ASD in Capricorn District, Limpopo Province.

1.3. PURPOSE OF THE STUDY

1.3.1. Aim of the study

The aim of this study was to determine the challenges faced by teachers when teaching learners with Autistic Spectrum Disorder in Special Schools in Capricorn District, Limpopo Province.

1.3.2. Objectives of the study were:

- To determine and describe the challenges faced by teachers when teaching learners with ASD in special schools in Capricorn District, Limpopo Province.

1.4. RESEARCH QUESTION

What are the challenges faced by teachers when teaching learners with ASD in special schools in Capricorn District, Limpopo Province?

1.5. LITERATURE REVIEW

Literature relevant to the challenges faced by teachers when teaching learners with Autistic Spectrum Disorder in special schools in Capricorn District, Limpopo Province was reviewed and will be discussed fully in Chapter 2.

1.6. RESEARCH METHODOLOGY

Research methodology is about the scientific steps that are taken, and the systematic use of methods to solve a proposed research problem (Fouche, Strydom & Roestenburg, 2021). This section of the methodology serves as a synopsis of the extensive discussion covered in Chapter 3.

1.6.1. Study Site

The study was carried out in Capricorn District in nine special schools. These are schools for learners with ASD. The district is split into two educational districts: Capricorn North and Capricorn South. There are nine special schools in Capricorn North, and five in Capricorn South for learners with Severe Intellectual Disabilities (SID). Amongst the SID learners in these special schools are learners with ASD between the ages of six (06) and twenty-one (21) years. The grades in these schools range from Grade 1 to Grade 5. The schools cater for learners' special learning needs, which is a type of support not provided in mainstream schools.

1.6.2. Research design

The study followed the descriptive phenomenological approach, which describes situations as experienced by participants rather than interpret them. The aim was to explain how the lifeworld of subjects is developed and experienced (Fouche et al., 2021). Lifeworld refers to a person's conscious experiences about a situation. The researcher discovered and described the challenges that teachers face when teaching

learners with ASD in Capricorn District, Limpopo Province. This approach has produced ideas and themes that have been expanded to created intervention that can be used in real-world settings (Brink et al., 2018).

1.6.3 Population and Sampling

The study participants were chosen using purposive sampling method.

1.6.4 Data collection

Data collection is a practice of acquiring information about a certain phenomenon (Taherdoost, 2021). To gather information, semi-structured interviews were employed.

1.6.5. Data Analysis

Data was analysed using thematic content analysis, which looks for themes and meanings that correspond with the research question throughout the data (Fouche et al., 2021; Maguire & Delahunt, 2017).

1.7. Ethical Considerations

1.7.1. Ethical Clearance

Turfloop Research and Ethics Committee granted the researcher ethical clearance to carry out the study. Head of department of Limpopo Department of Education gave the permission to gather data at nine special school. The participants signed the consent form prior to data collection.

1.8. BIAS

Bias was reduced through bracketing, which is defined as the researcher's ability to set aside their own beliefs and prior knowledge to avoid misrepresenting participants' intended meanings, perceptions or experiences (Florczak, 2022). The researcher maintained a balance between appearing aloof from, and being too involved, with the participants during the interview process.

1.9. CONCLUSION

The descriptive phenomenological approach was used in the study. Data was collected from teachers who teach learners with Autistic Spectrum Disorder in nine special schools in Capricorn District, Limpopo Province. A total of 26 teachers took part in the study. Semi-structured interviews were used to gather data, and ethical clearance and permission were sought before data collection. Privacy and confidentiality were maintained throughout the study.

CHAPTER 2: LITERATURE REVIEW

2.1. Introduction

The literature review was conducted using original articles, systematic reviews, books, and documents which focus on the topics about the prevalence of ASD among children, legislation on education for ASD and the challenges faced by teachers of learners with ASD. Search engines such as Google Scholar, WHO, Science Direct, Sage publications, South African government repositories and Ebscohost were used to source the information. Words used through the search engines included challenges, teachers, ASD, schools, teaching, prevalence and resources.

2.2. The Prevalence of ASD among children

The rise in the frequency of ASD among children aged 3-17 years has increased by 1,1% in the US between 2009 and 2017 (Li, Liu, Chen & Yang, 2022). The report by Centre for Disease Control and Prevention indicates that, the prevalence of ASD among children aged 8 years was 1.69% in 2014 and 1.85% in the United States. Between 2014 and 2016, the prevalence of ASD among children and adolescents in the United States was reported at 2,5%. In Italy, the prevalence among 7–9-year-old was 1.15%, Asia reported the prevalence of 3,9%, while there is any increase of 2,76% in Arab (Salari, Rasoulpoor, Khaledi-Paveh & Mohammadi, 2022). Salari et al. (2022) highlight that the increase in ASD prevalence is associated with a wide definition of ASD, alterations in diagnostic criteria and screening tools, shifts in research methods, and increased awareness of ASD.

The prevalence of ASD in Sub-Saharan Africa (SSA) remains unknown. The scarcity of this data has been attributed to scarcity of epidemiological surveys on ASD in these regions (Naidoo & Singh, 2018). Screening and diagnostic tools for ASD have been validated, factors impacting the lives of children living with ASD were examined, and preliminary intervention strategies were developed so that the prevalence of ASD in SSA can be understood (Abubakar et al., 2022). Findings by Abubakar et al. (2022) revealed that use of observation and parent-report aided in identifying characteristics of ASD in children. South Africa accounts for 0,08% of children diagnosed with ASD (Pillay, Duncan & de Vries, 2021) and it is estimated that 1 in every 88 children born will develop ASD (Numisi et al., 2020).

2.3. Legislation on Education for ASD

Between 1948 and 1994, the South African government did not cater for learners with barriers to learning. There were inequalities in special needs education where access was provided to certain racial groups (Yoro et al., 2020). Goal 4 of the United Nations 2023 Agenda for Sustainable Development emphasises comprehensive and impartial quality education that should promote lasting learning opportunities for everybody (Hanses, 2017). Intensive modifications in the education system are required to ensure that inclusive education is provided for all learners regardless of their background (Muñoz Martínez, Simón Rueda & Dios Pérez, 2023). The Portugal Inclusive Education Act promotes the teaching model that is based on the notion that, if modifications are made to the environment to meet their learning needs, all children can attain the educational requirements (Alves, Campos Pinto & Pinto, 2020).

The South African Schools Act (Act 79 of 1996) states that all schools are obliged to enrol all learners and meet their educational needs that fully promote their participation in the education system without showing discrimination due to their disability status. It further highlights that learners with special learning needs must be provided with the relevant support and ensure that physical facilities are accessible (DoE, 2020). The Convention on the Rights of Persons with Disabilities by the South African Government urges the system to provide an opportunity to life-long learning in an environment that is accommodative without discrimination (DSD, 2017).

To keep up with worldwide trends in inclusive education, the Department of Education (DoE) in South Africa instituted Education White Paper 6 on Special Needs Education Policy. The policy framework is aimed at fostering an inclusive education system that is persistent on the principles of equality for all learners, human rights, equal participation and access to quality education (DoE, 2001). The implementation of this policy affords learners with ASD a conducive environment for learning and growth alongside their typically developing peers (Majoko, 2017). The policy visualises a system that is accommodative of different learning needs of each learner by employing environmental modification strategies (DoE, 2020).

Inclusive education provides support to learners with ASD by encouraging complete participation and equality in the education system. It plays a transformative role in applying values that accept human diversity (Yoro et al., 2020). The enactment of

inclusive education requires a change in the method used to teach the learner to what and where s/he receives educational programme. Teachers must ensure that ASD learners access quality education, and effective participation takes place in the classroom (Majoko, 2017).

2.4. Challenges faced by teachers teaching learners with Autism Spectrum Disorder.

Learners with ASD are perceived to be challenging to teach compared to those with other unusual educational demands in the inclusive education setting (Muñoz Martín et al., 2023). The ability to initiate conversation, respond appropriately to the conversations, and understand the intention to communicate are amongst the difficulties exhibited by ASD learners (Padmadewi & Artini, 2017). Some present with disruptive behaviour, resulting in incomplete tasks and poor academic attainment (Yoro et al., 2020). Learners with ASD may also present with difficulties to process sensory input, play creatively, interact socially, execute commands, and understands the teachers' instructions and body language. Due to difficulty to regulate sensory input, learners with autism are not able to deal with noisy sounds, physical touch and maintain eye contact. These challenges impact the process of learning in the classroom (Majoko, 2017).

2.4.1. Teachers' knowledge about ASD and lack of training

A study conducted in Saudi Arabia revealed that teachers' lack of knowledge about ASD impacts both learners with ASD and the tools used to provide an appropriate education (Alharbi, Al-Thunayyan, Alsuhaibani & Alsalameh, 2019). Teachers have misconceptions and beliefs that affect the way they interact with or teach children with ASD. A teacher who believes that all learners with ASD have low intelligence might not make effort in teaching them thinking that no matter the approach employed will not benefit the learner (Rakap et al., 2018). Studies show that teachers have misconceptions about the causes of ASD and the behaviour of learners with ASD. Most teachers associated ASD with religion and believed that only religious practices and traditional healers could treat the disorder (Taresh, Ahmad, Roslan & Ma'rof, 2020). Teachers who lack understanding about ASD find it challenging to apply different teaching methods. This may account for poor educational outcomes for learners with ASD (Ibrahim Abdullah Ahmed, 2021). While EWP6 prioritises the

diverse learning needs of every learner, teachers show negative attitude towards learners with ASD, which negatively impacts the educational outcomes of these learners (Nthibeli, Griffiths & Bekker, 2022).

Insufficient training prevents teachers from supporting and accommodating learners with ASD. Studies show that teachers have limited knowledge about ASD and therefore are not able to effectively support learners with ASD by applying different teaching methods (Alharbi et al., 2019; Ibrahim Abdullah Ahmed, 2021). Teachers' knowledge about ASD and their level of training is closely associated with learners' success in the classroom. Teachers who have received training report that the training was through workshops where the information provided is inadequate to fully meet the social needs of learners with ASD (Johnson, Soares & Gutierrez de Blume, 2021). Due to the lack of knowledge in ASD, some teachers have rejected learners with ASD in their classroom (Luo, Wang, Zhou & Chen, 2022).

Numerous studies have shown that teachers graduate from college being ill-equipped to teach learners with ASD (Al Jaffal, 2022). This results in schools nominating a teacher considered capable and competent to teach ASD learners without pre-service training (Kistoro, Setiawan, Latipah & Putranta, 2021). Interacting with learners that have additional learning requirements causes stress and worry in many teachers (Yoro et al., 2020). Therefore, it is crucial that teachers are provided with training that will improve their skills and knowledge about ASD. Professional development is linked to teacher efficacy. Teachers who are trained show positive attitudes towards learners with ASD. Confidence in ones' abilities is a powerful tool for motivation, hence a teacher who believes in self-capability and competence will be more prepared for challenges (Leifler, 2020).

Teachers must make adaptations to the curriculum to address learner variation by employing multiple approaches that enhance the instruction and curriculum to match each individual learner's needs to accommodate the needs of ASD learners across a wide range of academic achievement levels

(Pienaar & Dreyer, 2023). Learners with ASD differ in their abilities, interests and prior knowledge. Therefore, by matching the content, instruction, and assessment the learners' skills, making adaptations to the curriculum will address this variation. (Reis

& Renzulli, 2018). A study by Onyishi and Sefotho (2020) revealed that teachers are aware that differentiation is effective in teaching learners with ASD, but seldom implement it due to limited skills. Other teachers resort to employing teaching strategies that do not benefit the learning outcomes for ASD learners because curriculum differentiation requires specific knowledge and skills (Pak, Polikoff, Desimone & García, 2020).

2.4.2. Availability of resources for learning

In Ireland, legislature provides guidance on the allocation of resources for learners with ASD. There is still shortage of learning tools for learners with ASD (Kenny, Mccoy & Mihut, 2020). Despite the adoption of legislature, South African schools experience challenges in providing education for learners with ASD due to a lack of appropriate infrastructure and effective and adequate teaching and learning resources (Nthibeli, Griffiths & Bekker, 2022). The lack of Information Communication Technologies (ICT) resources in low and middle-income countries (LMIC's) such as Rwanda contributes to poor performance in numeracy, literacy and comprehensive skills amongst ASD learners (Ntalindwa, Soron, Nduwingoma & White, 2019). Resources such as assistive technologies are crucial to allow teachers to support learners with ASD (Abubakar et al., 2022).

A study by Boitumelo, Kuyini and Major (2020) in Botswana shows that shortage of resource rooms and educational materials for running educational programmes negatively impacted learning outcomes for learners with ASD. This is consistent with a study by Page and Ferrett (2018), which revealed that insufficient funding is provided for schools offering education for learners with ASD compared to mainstream schools. Sabayleh and Alramamneh (2020) indicated that learning technologies are scarce in centres that offer education for ASD learners, and few teachers were trained on how to use these technologies during the learning process. The use of assistive technology has proved to benefit learners with ASD by improving their ability to socialise and engage with others (Ntalindwa et al., 2019). Ntalindwa et al. (2019) further highlighted that schools for learners with ASD are also confronted with facility limitations such as small classroom space, hostels and teaching materials that are not adapted. The absence of the curriculum relevant to these learners increases the burden on the

teachers, leading the learners to receive curriculum that lacks continuity (Ibrahim Abdullah Ahmed, 2021).

Specialised professionals such as psychologists, therapists and learning support educators are necessary to establish a holistic support of learners with ASD (Al Jaffal, 2022). Specialised professionals form part of multidisciplinary team providing comprehensive assessment that will help teachers identify the learning objectives for individual learners (Numisi et al., 2020). Findings by Abubakar et al. (2022) revealed that specialised professionals, who are the primary stakeholders in the care of children with ASD, do not give teachers enough support. The support focuses more on disabilities that are visible such as visual and hearing difficulties. These findings correspond with findings by Majoko (2017), indicating that multidisciplinary teams delivering services for learners with ASD lack some of the professionals such as educational psychologists, speech therapists or physiotherapists.

2.4.3. Collaboration amongst teachers teaching learners with ASD.

Collaboration amongst teachers is essential to successfully implement interventions for learners with ASD. It is imperative for teachers to work together with those with expertise within their schools by sharing the skills and knowledge required to meet the varying needs of the learners (Al Jaffal, 2022). Studies show improved and sustainable effects on educational outcomes of ASD learners when teachers collaborate with other educators who teach these learners. It was found that by collaboration, teachers' attitudes towards ASD learners changed and improved quality in teaching as well as student outcomes (Holmqvist & Lelinge, 2021).

A collaborative parent-teacher relationship is imperative for successful academic, behavioural, and social improvement of learners with ASD (Solone, Thornton, Chiappe & Perez, 2020). A study by Numisi et al. (2020) found that parent-teacher communication impacted learners' educational achievement. The learners' potential educational development depends on parents' knowledge about ASD, cultural practices, and the nature of parent-teacher communication (Numisi et al., 2020). A study by Macha, Simui and Muzata (2020) highlighted the positive benefits of parent-teacher collaboration to manage unwanted behaviours in learners with ASD. However, findings by Josilowski (2019) revealed a strained collaboration between parents and teachers of learners with ASD due to parents' rejection of their children's condition.

Another limiting factor for parent-teacher collaboration was difficulty in finding time by teachers to host extensive meetings with parents (Josilowski, 2019).

Collaboration amongst all stakeholders such as non-government organisations, teachers, therapists and parents is crucial for improved services for these learners. Stakeholders' competence is integral for the development of staff and improved practice (Majoko, 2017). Collaboration between educators and researchers has not significantly improved the educational outcomes for learners with ASD. This is explained by the fact that educators are unable to participate actively in the educational intervention research context for learners with ASD (Guldberg, Parsons, Porayska-Pomsta & Keay-Bright, 2017).

2.5. Conclusion

The literature discloses that teachers are faced with numerous challenges when teaching learners with ASD. Challenges such as poor collaboration between teachers, lack of resources and training, which impact educational achievement for learners with ASD were highlighted. Learners with ASD show no improvement in communication development, social interaction, and behaviour when taught in an environment that is poorly resourced. Teachers need to be better equipped to support the learning needs of learners with ASD. This study will explore challenges faced by teachers when teaching learners with ASD in Capricorn District, Limpopo Province.

CHAPTER 3: RESEARCH METHODOLOGY

3.1. Introduction

Research methodology is about scientific steps that are taken, and the systematic use of methods to solve a proposed research problem (Fouche, Strydom & Roestenburg, 2021). In this chapter, research approach, design, study site, study population, inclusion and exclusion criteria, sampling methods, data collection and data analysis are outlined.

3.2. Research approach

This study employed the qualitative research approach. Qualitative research refers to inductive, holistic, emic, subjective and process-oriented methods used to understand, interpret, describe and develop a theory on a phenomenon or setting. It focused on exploring, understanding and describing the challenges faced by teachers when teaching learners with ASD. Due of their subjective involvement in the project's conception and execution, the researcher served as the main research instrument. (Brink, van der Walt & van Rensburg, 2018). In the study, the researcher used this approach to understand, interpret, describe and develop themes.

3.3. Research design

The study followed the descriptive phenomenological approach. The aim of descriptive phenomenology is to describe situations as experienced by the participants rather than interpret them. The aim was to explain how the lifeworld of subjects is developed and experienced (Fouche et al., 2021). Lifeworld refers to a person's conscious experiences of a situation. In this study, the researcher discovered and described the challenges that teachers face when teaching learners with ASD in Capricorn District, Limpopo Province. The approach has produced ideas and themes that have been expanded upon to create interventions that can be used in real-world settings. (Brink et al., 2018).

3.4. Study Site

The study was conducted in nine special schools in Capricorn District. District is split into two educational districts, namely, Capricorn North and Capricorn South. There are four special schools in Capricorn North, and five in Capricorn South. There are

nine special schools in Capricorn North, and five in Capricorn South for learners with Severe Intellectual Disabilities (SID). Amongst the SID learners in these special schools are learners with ASD between the ages of six (06) and twenty-one (21) years. The grades in these schools range from Grade 1 to Grade 5. The schools cater for learners' special learning needs, which is a type of support not provided in mainstream schools

3.5. Population and Sampling

Population refers to persons or phenomena which the study inquiry is interested in (Fouche et al., 2021). The population in this study were teachers teaching learners with ASD in special schools in Capricorn District, Limpopo Province. The study employed purposive sampling method, in which the researcher uses their own judgement to select participants that provided the relevant information required for the study and possesses the required characteristics of the population being studied (Fouche et al., 2021; Etikan, 2017). The researcher used their judgement to purposely sample teachers who are teaching learners with ASD in the selected schools. Teachers who are teaching learners with ASD and were absent on the day of interviews were excluded from the study. A total of 15 teachers participated in the study and signed consent forms.

3.5.1. Inclusion criteria

Teachers of ASD learners working in special schools in Capricorn District and have given consent were eligible to participate in the study.

3.5.2. Exclusion Criteria

Participants who did not give informed consent and those who were absent during data collection were excluded.

3.6. Recruitment of participants

Individual approaches were used to approach potential participants, explaining the study's specifics and asking for their involvement. After explaining the details of the study, each participant was given a chance to voluntary decide if they are interested in participating in the study. A total of 15 teachers who teach learners with ASD from

nine special schools participated in the study after they had signed informed consent forms.

3.7. Pilot Study

The study was piloted with two educators to check whether the interview guide needed to be amended.

3.8. Data collection

Data collection is referred as the practice of obtaining information on a certain event in a defined, methodical manner to address pertinent questions (Taherdoost, 2021). This study used semi-structured interviews to collect data. The researcher had predetermined open ended questions to use as a guide. However, the questions were not asked in the same sequence for each participant. Follow-up and probing questions were asked when needed to obtain rich and think data. All the interviews were conducted in English and Sepedi to allow participants to express their views using the language they are comfortable with. Sepedi interviews were translated to English before they were transcribed. The researcher spent a period of two weeks going to all nine special schools to conduct interviews. Interviews were conducted in classrooms where teachers are stationed. Each interview lasted between 15- 30 minutes.

3.8. Data Management

The smart phone that was used to record the interview was password-protected and the audio files were transferred from the smart phone to a laptop after all interviews were conducted. A password was created for the file that contained the audio recordings.

3.9. Data Analysis

Data was analysed using thematic analysis, which looks for themes and meanings that correspond with the research question throughout the data (Fouche et al., 2021; Maguire & Delahunt, 2017). According to Terry, Hayfield, Clarke and Braun (2017), themes give guidance to be followed to organise and report the data. The researcher followed Braun and Clarke's (2013 in Fouche et al., 2021) six-phased steps of data analysis as follows:

1. Prior to the audiotaped material being transcribed, the researcher became acquainted with the data by listening to the audio files following each interview. After hearing the audio recorded data, the transcription procedure commenced. The researcher checked for consistency of meaning by listening to the audio files again and comparing them with the transcriptions after the data was transcriptions after the data was transcribed. At this phase, introspective ideas were recorded and saved in the files as raw data.
2. In this phase the researcher looked for relevant texts and labelled them as they relate to a theme or issue in the data.
3. After that, related codes were arranged into descriptive themes and sub-themes and shown in accordance with the patterns of meaning that were found.
4. After reviewing and analysing the themes and sub-themes, some of the codes were moved to better fit the meanings of the various themes.
5. Prior to finalisation, the project supervisor evaluated and deliberated over the final themes. Once identified and given names, some of the topics created were further divided into pertinent sub-themes.
6. Lastly, the results were summarised as themes and sub-themes in the Findings Chapter, each with an explanation backed up by direct quotes from the participants.
During analysis, co coder was used to improve credibility.

3.10. Measures to ensure Trustworthiness

3.10.1. Credibility

Credibility in qualitative research refers to how credible and reliable the data presentation and analysis are. (Stahl & King, 2020). It looks at whether the researcher has represented the original views of the participants (Fouche et al., 2021). The first step to ensure credibility was to explain the details of the study to the participants to ensure that they understand the purpose and what is expected of them. During the interview, the participants who did not give valuable information were probed with follow-up questions, prolonging the interview session to gain understanding and obtain thick data.

Investigator credibility was also used to increase credibility. This involved employing the co-coder to generate themes, sub-themes and codes; then interpretation was

compared with that of the researcher. The researcher further achieved credibility by doing member checking. This was done by going back to the participants to verify the transcribed data if it correctly represents their views.

3.10.2. Dependability

Dependability is the capacity of the research findings to remain consistent (Fouche et al., 2021), and is comparable to reliability. According to Stahl and King (2020), dependability describes how well study results may be repeated in a similar setting with similar participants. The study followed the qualitative approach to explore the challenges faced by teachers when teaching learners with ASD. The researcher was at the centre of the entire research project, keeping all the documentation. Descriptive phenomenology was used to describe the challenges faced by teachers when teaching learners with ASD.

Field notes describing the body language of the participants and other behaviours were observed and recorded. A thorough explanation of the data analysis procedure was given, utilising Braun and Clarke's (2006) six-step guide to thematic analysis. For the audit trail, all the original transcripts, data analysis, and field notes are provided.

3.10.3. Transferability

Transferability means that the context within which the study is conducted must be able to recognise and resonate with the findings of the study (Fouche et al., 2021). The researcher stated the number of special schools that participated in the study and where they were based. In recap, nine schools participated in the study. For the results to be transferable, the researcher sampled special schools based in Capricorn District, Limpopo Province so that the results can be applicable to every teacher teaching learners with ASD in special schools. The use of open-ended interviews helped in developing close rapport between the researcher and the participants, enabling the researcher to harvest rich and quality data. Each participant was given sufficient time to express themselves when responding to the questions. This enabled the researcher to obtain thick and in-depth data. However, there were no long sessions because sometimes long sessions can be monotonous to participants. In other words, the researcher ensured that the interview sessions were not very long or very short.

3.10.4. Confirmability

A reflective journal was used throughout the study to help minimise bias, avoid prejudice and to keep track of critical events, reflections and experiences that informed the study, analysis and write-up. The researcher is familiar with the participants since they are employed in Limpopo Department of Education and engage regularly with teachers teaching the learners with ASD in these schools. As a result, prior engagements could potentially bring biasness to the researcher's interpretation of the findings. The researcher used bracketing of their preconceived assumptions by using a reflective diary to keep record of their personal reflections during the times when they needed to step back and question their assumptions.

3.11. Ethical Consideration

The study required the researcher to interact deeply with the participants, thus entering their personal domains of values, private space and weaknesses to obtain data. This demanded that several ethical issues be adhered to during and after the research process.

3.11.1. Ethical Clearance

The researcher obtained ethical clearance from Turfloop Research Ethics Committee with reference number: TREC/1724/2023: PG, PG (Appendix G).

3.11.2. Permission to conduct the study.

Permission was obtained from the General Superintendent, Limpopo Department of Education (Appendix H). The researcher telephonically requested the school principal's permission to conduct the study in their schools, and they were issued with a permission letter from the Superintendent-General.

3.11.3. Informed Consent

The researcher informed the participants about their roles as participants and allowed them to ask questions about the study or the researcher. Thereafter, the participants signed Part A of the informed consent outlining the aim and objectives of the study, and Part B, consenting that the interview be audiotaped.

3.11.4. Anonymity and Confidentiality

The researcher ensured that the participants' names are anonymised. Pseudonyms were used throughout the report to identify the participants. Prior to data analysis, the researcher removed all identifying characteristics that might put the privacy of the participants in danger. A code-encrypted zip folder was created so that the data could not be accessed by anyone.

3.11.5. Respect, dignity and standard of care.

Each participant in the study was offered the dignity they deserved, and they were not humiliated, and their responses were not undermined. Participants were informed that refusal to participate or withdrawal would not in any way influence any future relationships with the school or the interviewer.

3.11.6.Harm

There was no psychological harm observed during the interview process.

3.11.7.Psychological risks that might arise during the study.

During the interview process, no psychological risks such as anger, anxiety, fear, stress and self-doubt were observed that might have required referral for psychological services for post-interview counselling.

3.12. Conclusion

This chapter discussed the research approach, design, study site, study population, inclusion and exclusion criteria, recruitment of participants, sampling, data collection and data analysis methods used. The researcher further discussed the trustworthiness as well as ethical considerations of the study.

CHAPTER 4: PRESENTATION AND DISCUSSION OF THE RESULTS

4.1. Introduction

This chapter discusses findings generated from participants through semi-structured interviews. A summary of the findings is presented in the form of themes and sub-themes which are supported by verbatim quotes from participants.

4.2. Characteristics of the Participants

The table below provides information about the characteristics of participants. A total of fifteen teachers (15) took part in the study, the minimum age of the participants is 31 years old, and the maximum is 58 years old. The number of years teaching ASD learners ranges from 5 years to 33 years. Fourteen female (14) and one male (1) teachers participated in the study.

Pseudo names	**Age**	**Gender**	**Number of years teaching ASD Learners**
Participant 1	50	Female	30
Participant 2	57	Female	31
Participant 3	55	Female	26
Participant 4	52	Female	31
Participant 5	54	Female	32
Participant 6	56	Female	32
Participant 7	58	Female	33
Participant 8	32	Female	5
Participant 9	55	Female	29

Participant 10	49	Female	24
Participant 11	50	Female	28
Participant 12	48	Female	29
Participant 13	59	Female	32
Participant 14	33	Female	4
Participant 15	31	Male	5

4.3. Summary of Themes and Sub-Themes Reflecting the Findings from Interviews

The study yielded three (3) themes, and seven (7) sub-themes as presented below. Each theme and sub-theme will be presented and discussed separately, with literature to support the findings.

Themes	Sub-themes
1. Parents are not involved in their children's learning process	1.1 Lack of cooperation from parents 1.2 Lack of understanding and awareness about ASD amongst parents
2. Teachers lack understanding of special needs education	2.1 Tertiary education does not prepare teachers to work with ASD learners 2.2 Their behaviour is difficult to handle when teaching
3. Shortage of resources	3.1 Overcrowding of learners in classrooms with few teachers available 3.2 Lack of educational materials. 3.3 There is a need for specialised professionals

Theme 1: Parents are not involved in their children's learning process

This theme describes the challenges of teaching learners with ASD whose parents are uninvolved in their children's learning process. Participants reported that parents are not involved in their children's learning process. Furthermore, the participants reported

that parents lack knowledge about ASD. They associated this with inappropriate treatment of these learners by parents at home. From this theme, two sub-themes that emerged are lack of cooperation from parents; and lack of understanding and awareness of ASD amongst parents.

Sub-theme1: 1.1 Lack of cooperation from parents

Teachers concur with the notion that “education is a societal matter” and that they cannot teach learners without involving parents. Teachers have reported that they are faced with the challenge of uncooperative parents when it comes to their children’s academic activities. Despite different methods that teachers have explored to involve parents in their children’s learning process, parents do not work together with the teachers. As a result, it poses a challenge for teachers when they are teaching these learners. Parents leave the responsibilities of their children’s learning to teachers without making any effort to assist.

This is evident when one participant responded by saying:

Participant 11: *“The same parents, they are not cooperating when we call them, they do not respond, it’s like they just dumped their children in the school”.* This indicated how uncooperative parents are when we are trying to involve them in their children’s academics.

Another participant shared the same sentiments when she said:

Participant 10: “*Another challenge is that the biological parents of these learners are not involved in their children’s lives. You may find that most of the learner live with their grandparents who seem to be caring, although we struggle when dealing with grandparents because they can’t help us with certain things”.*

Teachers also indicated that the activities that learners are taught at school should be continued at home. However, there is no continuation at home despite having discussed this with the parents. As a result, they must start all over again when learners return to school from recess. Other participants articulated these words:

Participant 12: *"Unfortunately, parents do not cooperate, they treat these learners as babies, they dress them, bath, and feed them, so when they return from recess, they know nothing, and we must start from scratch what we have taught them".*

Participant 6: "*There is no continuation of lesson implementation learner at home due to parents not cooperating".*

The aspect of uncooperative parents was further reported regarding disciplining the learners. Teachers reported that this is observed by the reaction they receive from the learners when they discipline them. Some of the learners cry or become aggressive when they are disciplined and go on with the behaviour that they are discouraged from.

This was supported by a statement by one participant who said:

Participant 14: *"Parents don't work together with us, more especially with discipline. I don't think these learners are disciplined at home. You can see when you discipline a learner that it is as if they are never disciplined at home".*

Lack of parental cooperation negatively impacts on teaching because teachers are unable to obtain relevant information about the strengths and abilities of the learners they are teaching from their parents (Amunga, Were & Ashioya, 2020). Teachers report that when parents cooperate with them, crucial information about the learners will be shared with them. In that way, the teacher will have knowledge of areas which they need to put much emphasis on when teaching (Dahl, 2019). A study conducted by Qureshi, Bano, Yaqub and Ali (2022) found that parents' uncooperative behaviour and unrealistic expectations about their school-going children negatively affected the teachers' work and made their job challenging.

The findings of the study are consistent with a study by Numisi et al. (2020), who reported that parents lack willingness and commitment to their children's education. Cooperation from parents is considered an important factor in supporting teachers' efforts, resulting in a successful teaching experience (Osaı, Amponsah, Ampadu & Commey-mıntah, 2021). When parents are cooperative, they share with teachers the strategies they use to mitigate challenges that they come across with learners when they are at home (Josilowski & Morris, 2019).

Sub-theme: 1.2 Lack of understanding and awareness about ASD amongst parents

In this sub-theme, participants reported that it is challenging to teach an ASD learner whose parents lack understanding and awareness about ASD. Participants shared that lack of awareness and understanding of ASD amongst parents results in them choosing inappropriate intervention for their children. Furthermore, they reported that most parents are in denial that their children are diagnosed with ASD. They also shared that parents get frustrated by the behaviour exhibited by their children with ASD and end up punishing them.

Participant 1: "Understanding of the child is the first resource. Most parents do not understand what ASD is, and that can be frustrating leading them to punishing these children when they exhibit certain behaviours".

Participant 5: "Some parents have denial, and even in the communities, they lack awareness about the disorders of these learners."

These findings indicate that lack of understanding and awareness of ASD amongst parents contribute to low levels of support to teachers and their children's educational activities. Parents' perceptions of ASD affect the way they handle the behaviour of their children; moreover, this may result in these children being denied quality education (Taresh et al., 2020).

Similar findings by Shilubane and Mazibuko (2020) and Chen, Zhang, Tseng and Chen (2021) indicate that lack of knowledge and beliefs about ASD amongst parents negatively impacts on the educational intervention for their children. Due to lack of awareness, parents were not helpful with the implementation of the education of learners with ASD, leaving the teachers overloaded with work (Adewumi & Mosito, 2019). The absence of knowledge about ASD by parents is associated with the poor management of the condition, which affects the learning and teaching of the child. It is challenging to teach a learner whose behaviour is poorly handled at home (Shilubane & Mazibuko, 2020).

Theme 2: Teachers lack understanding on special needs education.

Teachers' lack of understanding of special needs education is a challenge when they teach learners with ASD. The participants of this study reported that tertiary institutions do not prepare them to teach learners with special needs. The curriculum they are taught at tertiary institution does not prepare them to teach learners with special educational needs; instead they are trained to teach learners in mainstream schools. The subthemes that emerged from this theme are discussed below:

Sub-theme 2.1. Tertiary education does not prepare teachers to work with ASD learners

Effective teaching plays a major role in the success of the learner's education; so it is crucial for learners to be taught by skilled teachers (Shah, 2019). The participants reported that they are not trained to teach learners with ASD. They indicated that after graduating from college, they worked in the mainstream schools where they did not teach learners with ASD. They started learning about ASD and teaching learners with ASD when they were redeployed to special schools. Their statements were:

Participant 10: *"We didn't learn at all; At the college I didn't learn to teach learners with difficulties. At the college I just learnt method (Teaching methodology), I have worked for 20 years in a mainstream, teaching learners without ASD. I only started teaching learners with ASD in 2018 and I was faced with these learners with challenging behaviours. I enrolled for a course in inclusive education".*

Participant 11: *"In the first place let me indicate that most of us are not trained at tertiary institutions about ASD, we just met it here at work".*

Participant 13: *"I can't say it prepared us to teach learners of these nature, because we were trained to teach at mainstream schools, so when you are placed in a school of this kind, one needs to adjust their teaching methodology suitable for your learners".*

The method that teachers use to teach learners with ASD is crucial in terms of determining excellence in their teaching (Anderson, 2020). The participants reported that they were not taught how to teach learners with ASD during their tertiary education. Without training, teachers do not know which teaching methods to apply when teaching learners with ASD. This results in learners not benefiting anything when are taught in school. Al Jaffal (2020) found that without relevant training, teachers are

unable to teach learners with ASD. Most of them are faced with the challenge of inappropriately supporting and meeting learners' educational needs (Ibrahim Abdullah Ahmed, 2021). A skill and knowledge gap is identified amongst teachers who teach learners with ASD; and this gap is accounted for by the limited training that teachers received when they were in tertiary institutions (Lessner & Preece, 2020). Lack of competency (Qureshi et al., 2022) and field-based experience amongst teachers due to unavailability of training programmes lead to an unsatisfactory way of teaching learners with ASD (Johnson et al., 2021).

Teachers further reported that they resort to enrolling for postgraduate studies in special needs education to better equip themselves.

Participant 4: *"Not that I know of because when I went to tertiary, I didn't get that preparation until I enrolled specialisation in inclusive, because teachers 'tertiary training just teach about classroom management and how to control the register".*

Participant 9: "*During the time when I was in a training college, I was not trained to teach Autism learners. I learnt about it when I went to University of Pretoria, also when they brought lectures in special schools to train us. I did postgraduate studies in AAC".*

These findings mean that the curriculum in undergraduate tertiary training should incorporate teaching methodologies that cater for learners with ASD to prepare teachers to teach these learners. Undergraduate studies for teachers do not provide specialised training for teaching learners with ASD (Leifler, 2020). Furthermore, Aldabas (2020) found that tertiary education has not prepared teachers with teaching methodologies suitable for teaching learners with ASD. Johnson et al. (2021) found that professional development increases teaching confidence, a sense of self-sufficiency, and improved skills and practices to work with learners with ASD. Learners who are taught by skilled teachers display improved educational outcomes (Abubakar et al., 2022).

Sub-theme 2.2. Their behaviour is difficult to handle when teaching.

In this sub-theme, participants reported that learners with ASD exhibit behaviours that make it difficult to handle when teaching. ASD is a neurodevelopmental disorder characterised by deficits in communication, social interactions and restricted repetitive

patterns of behaviours, interests or activities (Rakap et al., 2018). Teachers explained that each day they are faced with challenging behaviours such as screaming and crying, walking up and down, covering of ears and low levels of concentration exhibited by the learners during lesson presentation. The teachers said:

Participant 1: *"So for example, a learner would stand up or cover their ears while you are teaching, how would that make you feel"?*

Participant 9: *"Most learners are speechless, some vocalise, but you cannot hear what they are saying; some are destructive during lesson presentation, they move around, it becomes difficult to sit them down".*

Other teachers reported that the learners exhibit meltdown. They mainly observe this behaviour when a learner is progressed from one class to the other, changing teachers. They report that this behaviour poses danger to the safety of the learner because during meltdown, the learners harm themselves by banging against the wall and they are destructive.

Participant 12: *"There is this learner who moved from our class to the other teacher's class, that learner is having meltdown and ended up engaging in self-harming activities such as banging against the wall, that is sad".*

Participant 7*:" …and these learners need to be progressed from one class to the next, so the next teacher would not know what to do when a learner is having a meltdown".*

Participant 4: *A learner would walk out of the classroom at any time" otherwise they will scream, hit the wall, and have a meltdown disturbing other learners*".

Other challenging behaviours are in relation to communication. The teachers report that the learners are not able to express themselves or follow instructions. The teachers find it challenging to communicate with them because they do not understand one another and not able to follow their instruction. Some of the learners cannot speak, while others cannot point certain objects.

Participant 15: *Sometimes when you talk to them, they don't know how to respond or how to communicate with you, they don't listen-when you say his or her name. she or he will not respond to you".*

Participant 9: *"Some are unable to point, let say when you ask them to point their body parts".*

Participant 14:" …*and you give them an instruction to identify certain object- they will just stand up and start to scream".*

These findings suggest that the behaviours exhibited by learners with ASD make teaching difficult since they disrupt the process of teaching, and teachers do not know how to handle them. These disruptive behaviours include screaming during lesson implementation, walking around in class, touching and pulling objects, climbing and jumping off the tables, and sometimes touching one's private parts (Ngosa, 2019).

The above reports are consistent with a study by Macha et al. (2020), that teachers find it challenging to teach when the learners exhibit disturbing behaviours. The behaviours manifested by ASD learners in the classrooms are related to poor social and communication skills, sensory processing, anxiety, attention and poor emotional regulation (McDougal, Riby & Hanley, 2020; Pienaar & Dreyer, 2023). Impairment in verbal and non-verbal communication contributes to socially unacceptable behaviours which affect social interactions (Heslop et al., 2021). These behaviours negatively impact the teaching and learning process.

Theme 3: SHORTAGE OF RESOURCES

The participants reported that teaching a learner with special needs is demanding and more challenging when there is lack of resources. Findings by Al Jaffal (2022) indicate that it is difficult to teach while there is shortage of resources. Three sub-themes emerged from this theme, which are overcrowding of learners in classes with few teachers available, lack of educational materials and a need for specialised professionals.

Sub-theme 3.1. Overcrowding of learners in the classes with few teachers

The participants reported that schools do not have enough classrooms, resulting in overcrowded classrooms. They further reported that classrooms for learners with ASD need to be spacious, with less lighting and must be noise-free. Moreover, participants

shared that there is a shortage of teachers and indicated that the teacher-learner ration for learners with ASD is 1:5. The participants said:

Participant 10: "*Another challenge is that we do not have infrastructure, there is overcrowding, we are two educators sharing a class in this school who are teaching learners with ASD".*

Participant 12: "*Due to overcrowding, learners with ASD can end up being in danger".*

Participant 4: "*Our school infrastructure was not developed to accommodate ASD- as you can see our classrooms are open, there is too much light to enter, and these makes the children uncomfortable, we need dark room, a class must be spacious, and even the teacher ration must be 5 learners per one teacher".*

Accordingly, teaching in overcrowded classrooms makes it impossible for teachers to attend to each learner's individual needs and capabilities. Globally, schools are faced with the challenge of overcrowding as they enrol many ASD learners while there are not enough classrooms to accommodate them (Busiku & Matafwali, 2022; Hachem & Mayor, 2019). The physical environment determines the success of the implementation of the education for learners with ASD.

Cook and Ogden (2022) found that teaching in a small classroom impacts negatively on the teaching process. It is not feasible to teach a learner with ASD in an overcrowded classroom (Busiku & Matafwali, 2022). In South Africa, overcrowding is a major challenge in schools as they impact on disciplining learners and attending to each learner individually (Phala & Hugo, 2022). Teaching in an overcrowded classroom poses a risk of not meeting the needs of each learner, leading to underperformance, burnout and high levels of stress (Abubakar et al., 2021). It increases the workload and reduces learner-teacher interaction. These findings are consistent with a study by Adewumi and Mosito (2019), who reported that teaching learners with ASD is time-consuming and places increased workload on the teacher. This is due to having few teachers and more learners with ASD in the school. Learners with ASD hardly receive one-on-one support compared to learners with other special education needs due to shortage of teachers (McDougal et al., 2020). The recommended teacher learner ratio is 1:6 (Sumbane et al., 2023).

Sub-theme 3.2. Lack of educational Materials

In this sub-theme, the participants reported that they do not have appropriate educational materials needed to teach learners with ASD. They indicated that they require specialised resources to teach. The teachers said:

Participant 3: "*We do not have enough materials, we do not have enough resources to teach these learners, as they require specialised resources."*

Participant 12: *"Resources are important since these children are not inclined to learn through reading and writing, they require specialised learning aids such as educational laptops and some sport equipment".*

Participant 6: "*So, we do not have enough resources, we are still in short of resources more especially that we only opened Autism class this year, so we are using last year's resources. Remember children with ASD need specific tools".*

Lack of teaching material limits teachers to meet the educational needs and progress of learners with ASD (Al Jaffal, 2022; Graham, 2021). Adewumi and Mosito (2019) found that teaching materials were supplied in small quantities in schools for learners with special needs. Similar challenges are also highlighted in studies by Wilson and Landa (2019), Allam and Martin (2021) and Nthibeli et al. (2022), who reported shortage of educational resources, visual aids and other support materials in schools.

Sub-theme 3.3. There is a need for specialised professionals

Participants reported that schools do not have specialised professionals to support them when teaching learners with ASD. Participants indicated that specialised professionals are experts when it comes to dealing with learners with ASD. The learners will benefit from the teachers' guidance if they were available in school facilities. Participants reported that:

Participant 6: *"When the child is admitted in the school you will discover that the child's report says they are ADHD, but when I look (with my little knowledge) at the learner I will suspect that they are Autistic, so when we have them (Specialised professionals) we are able to complete a form and submit in their office(make a*

referral) for re- assessment, and when re-assessment is done, they will guide me what to do."

Participant 12: *"We need therapist a lot because they are experts when it comes to dealing with learners with ASD. We teachers are only trained to teach learners and there are needs that are above us, so when we have them in the school, they will educate us".*

Participant 1: *"But when there is a challenge, it is much easier when we have them in school than taking them to the hospital".*

Participant 13: *"…. Even if we don't have them in the school, they must come regularly come and monitor and support us".*

Teachers are not skilled to manage most behaviours displayed by learners with ASD. Therefore they need assistance from specialised professionals such as occupational therapists, as they are experts in this area. Al Jaffal (2022) found that lack of collaboration between teachers and specialised professionals was a challenge for teachers since they do not have the expertise to provide the support required by learners with ASD. Similar findings are reported in a study by Sumbane et al. (2023), that shortage of specialised professionals resulted in teachers preparing individual teaching plans on their own. Specialised professionals are crucial in special schools as they play a role in supporting teaching and learning (Graham, 2021). Specialised professionals play a role of providing assessment and intervention for the learners, and support teachers (Pillay & Di Terlizzi, 2019). Alves et al. (2020) highlight that teaching a learner with ASD requires a collaborative relationship between teachers and specialised professionals to reduce the challenges that the teachers may face in the classroom.

4.4. Conclusion

This chapter presented the findings. The three themes and seven sub-themes that emerged from data analysis indicated that teachers are faced with several challenges such as uncooperative parents; shortage of staff, classrooms and educational materials; and lack of knowledge and skills to teach these learners. Relevant literature was presented to compare the findings with other studies. The findings are consistent

with other studies about the challenges faced by teachers when teaching learners with ASD.

CHAPTER 5: SUMMARY, CONCLUSION, LIMITATION AND RECOMMENDATIONS

5.1. Introduction

This chapter focuses on the summary of the findings, conclusions, limitations and recommendations.

5.2. Aim of the study

The aim of this study was to determine the challenges faced by teachers when teaching learners with Autistic Spectrum Disorder in special schools in Capricorn District, Limpopo Province.

5.3. Objectives of the study were

-To explore challenges faced by teachers when teaching learners with ASD in special schools in Capricorn District, Limpopo Province.

-To describe the challenges faced by teachers when teaching learners with ASD in special schools in Capricorn District, Limpopo Province.

5.4. Summary of the findings

The study revealed several challenges faced by teachers when teaching learners with Autistic Spectrum Disorder.

5.4.1. Parents are not involved in their children's learning process.

Participants assert that it is a challenge to teach a learner with ASD when their parents are not involved in their children's learning process. Teaching a learner with ASD requires the collaborative efforts of teachers and parents. Learning for ASD learners is a continuous process which must be emphasised even when the learner is at home. Teachers do not have to always start teaching from the beginning whenever the

learner returns from recess if activities that they teach in class are also emphasised at home.

Parents are resourceful in providing learning opportunities for the children when they are at home, hence the teachers need cooperation from them to execute this task. It is also important for parents to have knowledge and understanding of ASD so that they can implement the activities taught in classroom when the learners are at home. Some of the participants maintained that parents need to be educated about ASD. This is in accordance with a study by Mazibuko, Shilubane and Manganye (2020), that educational programmes should be available for caregivers of children with ASD to capacitate them about ASD.

5.4.2. Teachers lack understanding on special needs education

Participants maintained that tertiary education does not prepare them to teach learners with ASD, disabling them to handle the behaviours displayed by these learners during teaching. They highlighted that their undergraduate tertiary training only prepares them to teach learners without special learning needs. Participants lament that if tertiary institutions have offered them training in teaching methodologies for ASD learners, they would be able to understand how an ASD learner should be taught.

Furthermore, participants express that the behaviours exhibited by ASD learners are destructive, and lead to a challenging teaching experience. Participants suggest that undergraduate tertiary education should incorporate training in teaching learners with ASD. This is in line with a statement made in *Education White Paper 6 on Inclusive Education,* that “all learners with special educational needs must be taught by a trained teacher” (DBE, 2023).

5.4.3. Shortage of resources

Shortage of resources was reported to be a hindrance to teaching. Participants shared that shortage of classrooms, teachers and educational materials makes the delivery of lessons difficult as learners with ASD require real objects such as educational toys to learn. Moreover, there must be few ASD learners in the classroom. This is because the teacher must be able to attend to each learner when teaching. Participants also reported that due to a low number of teachers to teach learners with ASD, they are

overloaded with workload, leading to burnout. Participants further shared that they need guidance from specialised professionals, such as speech therapists when they prepare and deliver lessons in the classroom.

5.5. Conclusion

This study has provided insights into the challenges faced by teachers when teaching learners with ASD in special schools in Capricorn District, Limpopo Province. The findings revealed that several factors impact the teaching of learners with ASD. The availability of educational resources, parental cooperation, skills and knowledge of the teachers play a major role in the delivery of education for learners with ASD. These findings can be used to motivate various stakeholders to capacitate the teachers about ASD, the procurement of educational material relevant to learners with ASD and advocacy for parental involvement.

5.6. Limitations

The limitation of the study relates to transferability. This is due to the study 's lack of thick description about the context or school set-ups making it more difficult to determine transferability to other contexts.

5.7. Recommendations

Based on various issues that emerged from the study findings, the following recommendations are proposed:

Recommendations to the tertiary institutions that train teachers

- Tertiary institutions need to comprehensively train undergraduate teachers about ASD and teaching methodologies to apply when teaching learners with ASD.
- With increased prevalence of ASD, it must be compulsory for student teachers to do field-based training in schools for learners with ASD.

Recommendations to Limpopo Department of Education:

- Limpopo Department of Education (LDoE) must provide ongoing and practical professional development workshops for teachers who teach learners with ASD. These workshops must include different topics relating to ASD.
- Schools for learners with ASD must be provided with appropriate physical infrastructure.
- There must be provision of sufficient teachers to teach learners with ASD, i.e. one teacher per six ASD learners.
- There must be provision for adequate educational materials suitable to teach learners with ASD.

Disabled Peoples Organisations (DPOs)

- Organisations for people with disabilities such as Autism South Africa (ASA) must provide educational programmes and support groups for parents of children living with ASD and the community at large.

9. REFERENCES

Abubakar, A., Gona, J. K., Kipkemoi, P., Rimba, K., Amukambwa, D., & Newton, C. R. (2022). Perspectives of key stakeholders on educational experiences of children with autism spectrum disorders at the Kenyan Coast. *African Journal of Disability (Online)*, *11*, 1-6.

Acar, S., Chen, C. I., & Xie, H. (2021). Parental involvement in developmental disabilities across three cultures: A systematic review. *Research in Developmental Disabilities*, *110*, 103861.

Adewumi, T. M., & Mosito, C. (2019). Experiences of teachers in implementing inclusion of learners with special education needs in selected Fort Beaufort District primary schools, South Africa. *Cogent Education*, *6*(1), 1703446.

Ahmed, F. I. A. (2021). Teachers' perspectives on barriers of inclusion of autistic students in Saudi Arabia schools. *International Journal of Education and Practice*, *9*(1), 63-79.

Al Jaffal, M. (2022). Barriers general education teachers face regarding the inclusion of students with autism. *Frontiers in Psychology*, *13*, 873248.

Aldabas, R. (2020). Special education teachers' perceptions of their preparedness to teach students with severe disabilities in inclusive classrooms: A Saudi Arabian perspective. *Sage Open*, *10*(3), 2158244020950657.

Alharbi, K. A., Alharbi, A. A., Al-Thunayyan, F. S., Alsuhaibani, K. A., Alsalameh, N. S., Alhomaid, M. H., & Hamid, P. F. (2019). School's teachers knowledge about autism in Al-Badayacity, Al-Qassim Region, Kingdom of Saudi Arabia. *Materia socio-medica*, *31*(1), 4.

Allam, F. C., & Martin, M. M. (2021). Issues and challenges in special education: a qualitative analysis from teacher's perspective. *Southeast Asia Early Childhood*, *10*(1), 37-49.

Alsehemi, M. A., Abousaadah, M. M., Sairafi, R. A., & Jan, M. M. (2017). Public awareness of autism spectrum disorder. *Neurosciences Journal*, *22*(3), 213-215.

Altay, M. A. (2019). Family physicians' awareness of autism spectrum disorder: Results from a survey study. *Open access Macedonian Journal of Medical Sciences*, *7*(6), 967.

Alves, I., Campos Pinto, P., & Pinto, T. J. (2020). Developing inclusive education in Portugal: Evidence and challenges. *Prospects*, *49*(3), 281-296.

Amunga, J., Were, D., & Ashioya, I. (2020). *The teacher-parent nexus in the competency-based curriculum success equation in Kenya*.

Anderson, L. (2020). Schooling for pupils with autism spectrum disorder: Parents' perspectives. *Journal of Autism and Developmental Disorders*, *50*(12), 4356-4366.

Boitumelo, M., Kuyini, A. B., & Major, T. E. (2020). Experiences of general secondary education teachers in inclusive classrooms: implications for sustaining inclusive education in Botswana. *International Journal of Whole Schooling*, *16*(1), 1-34.

Brink, H., & Van der Walt, C. (2006). *Fundamentals of research methodology for health care professionals*. Juta and Company Ltd.

Busiku, C., & Matafwali, B. (2022). Management strategies for children with autism spectrum disorders in mainstream classrooms: evidence from selected special units in Lusaka Province of Zambia. *European Journal of Education and Pedagogy*, *3*(2), 135-141.

Chen, W. J., Zhang, Z., Wang, H., Tseng, T. S., Ma, P., & Chen, L. S. (2021). Perceptions of autism spectrum disorder (ASD) etiology among parents of children with ASD. *International Journal of Environmental Research and Public Health*, *18*(13), 6774.

Cook, A., & Ogden, J. (2022). Challenges, strategies and self-efficacy of teachers supporting autistic pupils in contrasting school settings: a qualitative study. *European Journal of Special Needs Education*, *37*(3), 371-385.

Dahl, K. K. B. (2017). Too much parental cooperation? Parent–teacher cooperation and how it influences professional responsibility among Danish schoolteachers. *Power and Education*, *9*(3), 177-191.

Department of Education (2023). *Guidelines to ensure quality education and support in Special schools and Resource centres*. Department of Education, Pretoria.

Department of Education. (2001). *Education white paper 6: Special needs education: Building an inclusive education and training system*. Pretoria: Department of Education.

Etikan, I. (2017). *Sampling and sampling methods biometrics*. *Biostatistics International Journal,* (5)6.

Florczak, K. L. (2022). Best available evidence or truth for the moment: Bias in research. *Nursing Science Quarterly*, *35*(1), 20-24.

Gómez-Marí, I., Sanz-Cervera, P., & Tárraga-Mínguez, R. (2021). Teachers' knowledge regarding autism spectrum disorder (ASD): A systematic review. *Sustainability*, *13*(9), 5097.

Graham, L. J. (2021). Inclusive education challenges for students with autism spectrum disorder. *BU Journal of Graduate Studies in Education*, *13*(3), 21-25.

Guldberg, K., Parsons, S., Porayska-Pomsta, K., & Keay-Bright, W. (2017). Challenging the knowledge-transfer orthodoxy: Knowledge co-construction in technology-enhanced learning for children with autism. *British Educational Research Journal*, *43*(2), 394-413.

Hachem, H., & Mayor, P. (2019). *Overcrowding in schools: Why is it a huge Issue.* Retrieved June 13, 2024. https://patch.com/michigan/dearborn/overcrowding-schools-why-it-huge-issue.

Hanses, E. (2017). *Transforming our world: the legal value of the 2030 agenda for sustainable development in the EU legal order.*

Heslop, J., & Mophosho, M. (2021). Communication strategies used by specialised preschool teachers for children with Autism Spectrum Disorder in South Africa. *The Allied Health Scholar*, *2*(1), 20-50.

Holmqvist, M. & Lelinge, B., 2021. Teachers' collaborative professional development for inclusive education. *European Journal of Special Needs Education*, 36(5):819-833.

Janse van Rensburg, M., & Clasquin-Johnson, M. G. (2023). Parental involvement in the case of primary school children with autism during COVID-19. *South African Journal of Childhood Education*, *13*(1), 1-10.

Johnson, A., Soares, L., & Gutierrez de Blume, A. P. (2021). Professional development for working with students with autism spectrum disorders and teacher self-efficacy. *Georgia Educational Researcher*, *18*(1), 1-25.

Josilowski, C. (2017). *Teachers' perceptions of the home-school collaboration: Enhancing learning for children with autism*. Capella University.

Josilowski, C. S., & Morris, W. A. (2019). A qualitative exploration of teachers' experiences with students with autism spectrum disorder transitioning and adjusting to inclusion: Impacts of the home and school collaboration. *The Qualitative Report*, *24*(6), 1275-1286.

Kenny, N., McCoy, S., & Mihut, G. (2020). Special education reforms in Ireland: changing systems, changing schools. *International Journal of Inclusive Education*, 1-20.

Leifler, E. (2020). Teachers' capacity to create inclusive learning environments. *International Journal for Lesson & Learning Studies*, *9*(3), 221-244.

Lessner Listiakova, I., & Preece, D. (2020). In-service education and training for teachers regarding autism spectrum disorder: a review of the literature. *Annales Universitatis Paedagogicae Cracoviensis: Studia Psychologica*, *12*, 177-199.

Love, A.M., Findley, J.A., Ruble, L.A., & McGrew, J.H. (2020). Teacher self-efficacy for teaching students with autism spectrum disorder: Associations with stress, teacher engagement, and student IEP outcomes following COMPASS consultation. *Focus on Autism and Other Developmental Disabilities*, (35)1: 47-54.

Luo, Z., Qi, Q., Wang, K., Zhou, J., Chen, S., & Wang, L. (2022). Current status of and challenges posed by autism spectrum disorders in China: Prevalence, legal issues, and public awareness. *BioScience Trends*, *16*(2), 167-171.

Macha, V., Simui, F., & Muzata, K. K. (2020). Parents and teachers experiences of managing peculiar psychosocial behaviours of learners with autism spectrum disorder in selected special units in Lusaka, Zambia. *Multidisciplinary Journal of Language and Social Sciences Education, 3*(2), 15-42.

Maguire, M., & Delahunt, B. (2017). Doing a thematic analysis: A practical, step-by-step guide for learning and teaching scholars. *All Ireland Journal of Higher Education*, *9*(3).

Majoko, T. (2017). Practices that support the inclusion of children with autism spectrum disorder in mainstream early childhood education in Zimbabwe. *Sage Open*, *7*(3), 2158244017730387.

Mazibuko, N., Shilubane, H., & Manganye, S. (2020). Caring for children diagnosed with autism spectrum disorder: caregivers' experiences. *Africa Journal of Nursing and Midwifery*, *22*(2), 14-pages.

McDougal, E., Riby, D. M., & Hanley, M. (2020). Teacher insights into the barriers and facilitators of learning in autism. *Research in Autism Spectrum Disorders*, *79*, 101674.

Naidoo, M., & Singh, S. (2018). The Oral health status of children with utism spectrum disorder in KwaZulu-Nata, South Africa. *BMC Oral Health*, *18*, 1-9.

Ngosa, D. (2019). *Experiences of teachers in teaching learners with autism spectrum disorders (ASD) in selected special schools in Lusaka district, Zambia* (Doctoral dissertation, University of Zambia).

Ntalindwa, T., Soron, T. R., Nduwingoma, M., Karangwa, E., & White, R. (2019). The use of information communication technologies among children with autism spectrum disorders: Descriptive qualitative study. *JMIR Pediatrics and Parenting*, *2*(2), e12176.

Nthibeli, M., Griffiths, D., & Bekker, T. (2022). Teaching learners with autism in the South African inclusive classroom: Pedagogic strategies and possibilities. *African Journal of Disability*, *11*, 979.

Numisi, S., Themane, M., Nel, K., & Govender, I. (2020). *Parent-teacher collaboration in children with autism spectrum disorder in Limpopo Province, South Africa*.

Onaolapo, A.Y. & Onaolapo, O.J. (2017). Global data on autism spectrum disorders prevalence: A review of facts, fallacies and limitations. *Universal Journal of Clinical Medicine,* 5(2), 14-23.

Onyishi, C. N., & Sefotho, M. M. (2020). Teachers' perspectives on the use of differentiated instruction in inclusive classrooms: implication for teacher education. *International Journal of Higher Education*, *9*(6), 136-150.

Osaı, J. A., Amponsah, K. D., Ampadu, E., & Commey-mıntah, P. (2021). Teachers' experiences with overcrowded classrooms in a basic school in Ghana. *International Online Journal of Primary Education*, *10*(1), 73-88.

Padmadewi, N. N., & Artini, L. P. (2017). Teaching English to a Student with Autism Spectrum Disorder in Regular Classroom in Indonesia. *International Journal of Instruction*, *10*(3), 159-176.

Page, A., & Ferrett, R. (2018). Teacher aides' views and experiences on the inclusion of students with Autism: A cross-cultural perspective. *International Education Journal: Comparative Perspectives*, *17*(2), 60-76.

Pak, K., Polikoff, M. S., Desimone, L. M., & Saldívar García, E. (2020). The adaptive challenges of curriculum implementation: Insights for educational leaders driving standards-based reform. *Aera Open*, *6*(2), 2332858420932828.

Phala, T. A., & Hugo, A. (2022). Difficulties in teaching Grade 3 learners with reading problems in full-service schools in South Africa. *African Journal of Disability (Online)*, *11*, 1-9.

Pienaar, S., & Dreyer, L. M. (2023). Including learners with Autism Spectrum Disorder: Voices of mainstream teachers. *Journal of Education (University of KwaZulu-Natal)*, (93), 4-22.

Pillay, S., Duncan, M., & de Vries, P. J. (2021). Autism in the Western Cape Province of South Africa: Rates, socio-demographics, disability and educational characteristics in one million school children. *Autism*, *25*(4), 1076-1089.

Qureshi, M. S., Bano, H., Yaqub, M. S., Ansari, S., & Ali, M. (2022). Constrains experienced by teachers of children with special needs: A quantitative inquiry. *PalArch's Journal of Archaeology of Egypt/Egyptology*, *19*(4), 497-507.

Rakap, S., Balikci, S., & Kalkan, S. (2018). Teachers' knowledge about autism spectrum disorder: The case of Turkey. *Turkish Journal of Education*, *7*(4), 169-185.

Reis, S. M., & Renzulli, J. S. (2018). The five dimensions of differentiation. *International Journal for Talent Development and Creativity*, *6*, 87-94.

Sabayleh, O. A., & Alramamneh, A. K. (2020). Obstacles of implementing educational techniques in special education centres from autism teachers' perspective. *Cypriot Journal of Educational Sciences*, *15*(2), 171-183.

Salari, N., Rasoulpoor, S., Rasoulpoor, S., Shohaimi, S., Jafarpour, S., Abdoli, N., & Mohammadi, M. (2022). The global prevalence of autism spectrum disorder: a comprehensive systematic review and meta-analysis. *Italian Journal of Pediatrics*, *48*(1), 112.

Shah, R. K. (2019). Effective constructivist teaching learning in the classroom. *Online Submission*, *7*(4), 1-13.

Shilubane, H., & Mazibuko, N. (2020). Understanding autism spectrum disorder and coping mechanism by parents: An explorative study. *International Journal of Nursing Sciences*, *7*(4), 413-418.

Solone, C. J., Thornton, B. E., Chiappe, J. C., Perez, C., Rearick, M. K., & Falvey, M. A. (2020). Creating collaborative schools in the United States: A review of best practices. *International Electronic Journal of Elementary Education*, *12*(3), 283-292.

Strydom, H. F. C., & Roestenburg, W. J. H. (2021). *Research at grass roots for social sciences and human services professions.* 5th Ed. Van Schaik Publishers.

Sumbane, G. O., Mothiba, T. M., Modula, M. J., Mutshatshi, T. E., & Manamela, L. E. (2023). The McKinsey's 7-S model framework for assessment of challenges faced by teachers of children with autism spectrum disorders in the Limpopo province, South Africa. *South African Journal of Childhood Education*, *13*(1), 1129.

Taherdoost, H. (2021). Data collection methods and tools for research; a step-by-step guide to choose data collection technique for academic and business research projects. *International Journal of Academic Research in Management (IJARM)*, *10*(1), 10-38.

Taresh, S. M., Ahmad, N. A., Roslan, S., & Ma'rof, A. M. (2020). Preschool teachers' beliefs towards children with autism spectrum disorder (Asd) in Yemen. *Children*, *7*(10), 170.

Terry, G., Hayfield, N., Clarke, V., & Braun, V. (2017). *Thematic analysis. The SAGE handbook of qualitative research in psychology*, *2*(17-37), 25.

Van der Merwe, M., Fourie, J. V., & Yoro, A. J. (2020). Learning support strategies for learners with neurodevelopmental disorders: Perspectives of recently qualified teachers. *African Journal of Disability*, *9*(1), 1-10.

Viviers, M., Jongh, M., Dickonson, L., Malan, R., & Pike, T. (2020). Parent-reported feeding and swallowing difficulties of children with Autism Spectrum Disorders (aged 3 to 5 years) compared to typically developing peers: a South African study. *African Health Sciences*, *20*(1), 524-532.

Wilson, K. P., & Landa, R. J. (2019, March). Barriers to educator implementation of a classroom-based intervention for preschoolers with autism spectrum disorder. In *Frontiers in Education* (Vol. 4, p. 27). Frontiers Media SA.

10. APPENDICES

10.1. Appendix A: Time frame

Activity	Time Frame
Research proposal	March to June 2023
Submission to the department	June 2023
Submission to School	August 2023
Submission to Faculty	September 2023
Submission to TREC	October 2023
Submission to Department of Education	November 2023
Data collection	November and December 2023; and January and February 2024
Data analysis	March-April 2024
Write-up	May to April 2024
Submission for editing	May 2024
Submission for external assessment	June -July 2024
Finalisation of the study	July to August 2024
Graduation	May 2025

10.2. Appendix B: Budget

Activity	Budget
Tuition fee	R30 000
Laptop	R7000.00
Internet bundles (24 months)	R5500 (R500 per month)
Traveling	R8 000
Tape Recording Device	R2500
Printing	R2000
Total	R55 000

10.3. Appendix C: Consent Form

PART A:
Informed consent
Participant consent form

(For each participant, please read and understand the document before signing)

Challenges faced by teachers when teaching learners with Autistic Spectrum Disorder in Special Schools in Capricorn District, Limpopo Province.

Dear Participant,

This is an invitation to participate in the study. This is to help you decide if you would like to participate. Should there be any questions, please feel free to ask the researcher.

The purpose of the study is:

1. To explore challenges faced by teachers when teaching learners with autistic spectrum disorder in special schools in Capricorn District, Limpopo Province.

2. To describe the challenges faced by teachers when teaching learners with autistic spectrum disorder in special schools in Capricorn District, Limpopo Province.

The sample of this study will be teachers who teach learners with autism spectrum disorders.

You will need to complete:

- This consent form; and
- Short biographical information request.

You are free to withdraw from the study without giving reasons. Participation is voluntary.

The aim of this study is to find out the challenges faced by teachers when teaching learners with autistic spectrum disorder in special schools in Capricorn District, Limpopo Province.

The study will take 2 months to complete.

Has the study received ethical approval?

This study will commence upon approval from Turfloop Research Ethics Committee, the Limpopo Provincial Department of Education and School Principals of the nine Special Schools in Capricorn District.

Rights of participants in the study

Participation is voluntary and you have the right to refuse participation in the study. Refusal to participate will not in any way influence any future relationships with the school or the interviewer.

Are there any risks?

There are no risks attached.

Discontinuation of participants in the study

No pressure will be exerted on the participant to participate in the study and the participant may withdraw at any stage without any penalty.

Any financial arrangements

There are no financial resources that participants can benefit from the study, and the researcher is not going to receive any incentives.

Confidentiality

All information provided to the research team will be treated as confidential.

Informed consent form to be signed by the participants

I hereby confirm that I have been informed by the investigator, **Keorapetse Linda Ralebapa** about the nature, conduct, benefits and risks of this study. I have also read the above information regarding this study.

I may withdraw my consent as well as my participation in the study. I declare that I had a sufficient opportunity to ask questions and therefore declare myself prepared to participate in the study.

Participant/caregiver Name _____

Participant/caregiver' signature _____

Date _____

Investigator's name _____

Investigator's signature _____

Date _____

I, **Keorapetse Linda Ralebapa** hereby confirm that the above participant has been informed fully about the nature of the study.

Witness name _____

Witness signature _____ Date _____

PART B:

CONSENT FORMS FOR TAPE-RECORDING

2. Consent form for interview being tape-recorded

I _____ consent to an interview with **Keorapetse Linda Ralebapa** for her study entitled 'Challenges faced by teachers when teaching learners with Autistic Spectrum Disorder in Special Schools in Capricorn District, Limpopo Province' to be tape-recorded.

I understand that:

- The tapes and transcripts will not be seen or heard by any person in this organisation at any time and will only be processed by the researcher.

- All tape recordings will be locked in a code-protected zip folder after analysis to ensure the privacy of the participants and will be destroyed after the research is complete.

- No identifying information will be used in the transcripts or the research report.

Date: _____

Signed _____

I, **Keorapetse Linda Ralebapa** hereby confirm that the above participant has been informed fully about the nature of the study.

Witness name _____

Witness signature _____ Date _____

10.4. Appendix D: Semi-Structured Interview Schedule

Central question: What are the challenges you are faced with when teaching learners with ASD?

Probing questions:

1. Please share with me your understanding of Autistic Spectrum Disorders.
2. Research shows that teachers' knowledge and training about ASD will affect the scholastic performance of a learner with ASD. In your opinion, which knowledge should teachers possess to teach learners with ASD? (Prompt: What traits should teachers have?)
3. How important is it for teachers teaching learners with ASD to collaborate? What are the benefits of collaborating?
4. How important is it to have a specialised professional (e.g., speech therapist/occupational therapist' educational psychologist or physiotherapist) in a school with ASD learners?
5. How does teachers' tertiary training prepare them to teach learners with ASD?
6. What are the challenges you are faced with when teaching learners with ASD? In your opinion, how can these challenges be mitigated?
7. How does legislature /policy support the teaching of learners with ASD?

10.5. Appendix E: TREC ethics clearance certificate

University of Limpopo
Department of Research Administration and Development
Private Bag X1106, Sovenga, 0727, South Africa
Tel: (015) 268 3935, Fax: (015) 268 2306, Email: tukiso.moloantoa@ul.ac.za

TURFLOOP RESEARCH ETHICS COMMITTEE

ETHICS CLEARANCE CERTIFICATE

MEETING: 04 December 2023

PROJECT NUMBER: TREC/1724/2023: PG

PROJECT:

Title:	Challenges faced by teachers when teaching learners with Autistic Spectrum Disorder in Special Schools in the Capricorn District, Limpopo Province
Researcher:	KL Ralebapa
Supervisor:	Dr MP Kekana
Co-Supervisor/s:	N/A
School:	Health Care Sciences
Degree:	Master of Public Health

PROF D MAPOSA
CHAIRPERSON: TURFLOOP RESEARCH ETHICS COMMITTEE

The Turfloop Research Ethics Committee (TREC) is registered with the National Health Research Ethics Council, Registration Number: **REC-0310111-031**

Note:

i) **This Ethics Clearance Certificate will be valid for one (1) year, as from the abovementioned date. Application for annual renewal (or annual review) need to be received by TREC one month before lapse of this period.**

ii) **Should any departure be contemplated from the research procedure as approved, the researcher(s) must re-submit the protocol to the committee, together with the Application for Amendment form.**

iii) **PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES.**

10.6. Appendix F: Request for Permission

University of Limpopo

Private bag X1106

Sovenga

0727

The Head of Department

Department of Education Limpopo

Private bag X9489

Polokwane

0700

Re: REQUEST FOR PERMISSION TO CONDUCT A STUDY RESEARCH

Dear Sir/Madam

I, Keorapetse Linda Ralebapa student number 200721417 from the Faculty of Health Sciences, University of Limpopo would like to request permission to conduct a research study on “The challenges faced by teachers when teaching learners with Autistic Spectrum Disorder in special schools-Capricorn District-Limpopo”.

The study has been approved by the Turfloop Research Ethics Committee. Consent form and letter of information will be given to participants for their voluntary participation.

I hope my request will be considered.

Yours faithfully

Ralebapa KL

10.7. Appendix G: Permission from Limpopo Department of Education

Confidential Information - This is for official consumption

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
EDUCATION
CONFIDENTIAL

Ref: 2/2/2 Enq: Makola MC Tel No: 015 290 9448 E-mail: MakolaMC@edu.limpopo.gov.za

Ralebapa K.L
P.O BOX 437
Mapela
0610
keorapetselinda@yahoo.co.uk

RE: REQUEST FOR PERMISSION TO CONDUCT RESEARCH

1. The above bears reference.
2. The Department wishes to inform you that your request to conduct research has been approved. Topic of the research proposal: **"Challenges faced by teachers when teaching learners with Autistic Spectrum Disorder in Special Schools in the Capricorn District, Limpopo Province."**

3.The following conditions should be considered:

3.1 The research should not have any financial implications for Limpopo Department of Education.

3.2 Arrangements should be made with the District or Circuit Office and the School concerned.

3.3 The conduct of research should not in anyhow disrupt the academic programs at the schools.

3.4 The research should not be conducted during the time of Examinations especially the fourth term.

3.5 During the study, applicable research ethics should be adhered to; in particular the principle of voluntary participation (the people involved should be respected).

3.6 Upon completion of research study, the researcher shall share the final product of the research with the Department.

REQUEST FOR PERMISSION TO CONDUCT RESEARCH : RALEBAPA KL Page 1

Cnr 113 Biccard & 24 Excelsior Street, POLOKWANE, 0700, Private Bag X 9489, Polokwane, 0700
Tel:015 290 7600/ 7702 Fax 086 218 0560

The heartland of Southern Africa-development is about people

10.8. Appendix H: Examples of Transcripts as Narrated Verbatim by Participants

Transcript 1

Participant 1(female)

Interviewer: Please share with me your understanding of Autistic Spectrum Disorders

Participant: ASD is a disability that people have, and they don't live like any other people with other disorders, they behave different from them, most of them have speech impairment, but not all of them, they have involuntary movements or something that they do, example they clap hands. They have a lot of characteristics and they like making sounds since most of them cannot speak.

Interviewer: Research shows that the teachers' knowledge and training about ASD will affect the scholastic performance of a learner with ASD. In your opinion, which knowledge should teacher possess to teacher learners with ASD? (Prompt: What traits should teachers have?)

Participant: Knowledge that the teachers must have when teaching learners with ASD is to learn to know what ASD is all about and how to deal with challenges a person with autism present with. Teachers need to be equipped to know. There must be a training on teaching learners with ASD. With the research I did, the explanation I got from the professor told me that people with ASD is like when you are in another country where people speak a foreign language you do not understand, They have a challenge not fitting in most activities done in the society , first thing because they do not have speech they appear as if when people speak, causes noise for them, they do not hear words, but can hear noise, and they are unable to say you are making noise"

because they do not have speech. One need someone to explain what ASD is so that we can understand a person with ASD, like we understand Blind people.

Interviewer: How important is it for teachers teaching learners with ASD to collaborate? What are the benefits of collaborating?

Participant: The benefit is that you will share the challenges, you will share knowledge about these learners, you will share techniques, and will be able to improve on the things you didn't know when teaching these learners. Just like when you teach people, even in normal schools when you share, you will produce good results.

Interviewer: How important is it to have a specialized professional (e.g., Speech Therapist/Occupational Therapist' Educational Psychologist or Physiotherapist) in the school with ASD learners?
Participant: I do not the importance of speech therapists on children with ASD, "I don't know how they will do it'., but when there is a challenge, it is much easier when we have them in school than taking them to the hospital because some parents do not have money, they can't afford to take them to the hospital, and other children with other disabilities will benefit.

Interviewer: How does teachers' tertiary training prepare teachers to teach learners with ASD?

Participant: Tertiary? No they don't teach. You need to go and register (Ko kae-kae) somewhere just to get to know about ASD children.

Interviewer: So, teachers don't come prepared because tertiary training doesn't train/prepare them to teach learners with ASD?

Participant: Yes, it doesn't involve them, because these children with Autism were misunderstood until (Maybe)someone took it upon themselves to understand about ASD what is happening in their head or their life.

I**nterviewer**: So, most teachers took it upon themselves to do self-taught about ASD?

Participant: Most teachers are self-taught. Even myself I did my own research about characteristics about a child exhibiting certain characteristics, what do I do. I attended

workshop on my own expense. Autism was not well understood like the physically impaired such as blindness and deaf, teachers go for training on braille or South African Sign Language (SASL) to support learners with Deafness and Blindness. And you are not taught these skills and tertiary, it's a course that you take separately I think- because we were given the opportunity to learn it.

Interviewer: So, in your workplace you are not given the opportunity to be trained about ASD?

Participant: I have a training before I started working in this school. These are some of the workshops that must be planned by the employer. There is currently not workshop taking place on ASD.

Interviewer: What are the challenges you are faced with when teaching learners with ASD? And according to you how they be mitigated?

Participant: Challenges that learners with ASD are misunderstood, so for a example, a learner would stand up or cover their ears while you are teaching, how would that make you feel? They just make noise at all the time. They just make involuntary movements. Also they are many in the classroom.

Interviewer: Are you provided with resources to teach these learners and what kind of resources are you provided with? What is the importance of having resources when teaching learners with ASD?

Participant: They are important, and they are needed. How would you teach them without resources. Imagine dealing with learners who cannot talk, how would you teach them?

Interviewer: How does parental involvement support teaching for learners with ASD?

Participant: Understanding of the child is the first resource. Most parents do not understand what ASD is, and that can be frustrating leading them to punishing these children when they exhibit certain behaviours. Parents must be trained together with

teachers so that they can understand ASD, they can also share information with the teachers about the child, like how is the child at home. This will be continuation at home. They will have a better information about the child since they raised the child.

Interviewer: How does legislature support teaching of learner with ASD?

Participant: Inst that they are saying every child is educable, which I totally disagree with, I say " not every child can be educable, but every child can be trained, that me, I don't know if training means educating. I don't know I might be wrong. Because I have more than 30 years working in special schools, this teaching that is wanted that is called teaching, these children couldn't do it in mainstream schools, do you expect me to be teaching these children "a,e.i,o.u? if you expect that, then you don't know these children. These learners, There are those that cannot be educable, example with an Autistic child, this person does not have speech and it doesn't mean s/he cant hear,they don't need sign language, because they can hear.

Transcript 6

Participant 6 (Female)

Interviewer: Please share with me your understanding of Autistic Spectrum Disorders

Participant: Eeh The spectrum called Autism frustrates, confuses the parent and child. A child ends up not knowing what they want, and sometimes it makes a child not to be here while they are not here, a child lives two or more lives at the same time. There are things that the child wants, but is not be able to explain it, a parent ends up not knowing what the child wants.

Parents are not educated about this disorder, does not know what to do with the child when they are like this.

Another thing in the schools, teachers need to be trained more about this disorder, they just studied about it and didn't do the practical part. So at least if one studied it and did practical. It's a disorder that need one to be trained on, a teacher and a parent.

Interviewer: Research shows that the teachers' knowledge and training about ASD will affect the scholastic performance of a learner with ASD. In your opinion, which knowledge should teacher possess to teacher learners with ASD

Participant: First knowledge is to read and know that a child like this needs and what kind of support they need. Secondly, one need to attend workshops, where you will be trained the practical part so that one can implement.

Interviewer: What traits should teachers have?

Participant: A teacher must be patient, secondly, I realized these ASD wants love, they want to be hugged and be brought closer to the teacher more especially when they are frustrated and crying. One needs to understand them and know how to calm them down when something happens. You may not be able to understand everything about them, but at least one can know how to calm them down.

Interviewer: How important is it for teachers teaching learners with ASD to collaborate? What are the benefits of collaborating?

Participant: Ehh, according to me I think all of us teachers we must educate ourselves about this thing, because when I look at this children is'nt that they are not the same? There are those that can succeed whereas some of them (eeh) you cannot teach them skill, because first thing when arrive we check sensor skills, motor that can determine if they will succeed, so a teacher must try, to teach to at least try to identify what the child can succeed in, even if its just one thing.

It is not all of them who can learn through reading or writing with books, but they are creative and like to design things and love technology, while others loves books, and they like to colour..

Interviewer: So they actually need to be understood?

Participant: Yes, we have a challenge of shortage of LTSM (Learning and teaching Support Material) because the resources we have end up boring them because they used to them, but even though, we always keep giving them.

Interviewer: Do you have enough resources?

Participant: So, we do not have enough resources, we are still in short of resources more especially that we only opened Autism class this year, so we are using last year's resources. Remember children with ASD need specific tools.

Interviewer: **What kind of resources do they need?**

Participant: they need visible objects a lot, for examples when we talk about toys…..they need Television so that they can watch children's programs that they will sing and dance along so that they can be active, they need toy cars, dolls, puzzles, and there are specific puzzles for ASD learners, that are colourful, but must not have many colours, maybe just one colour, because they do not need that, with numbers that are visible, and must not be written in words because they cant read, but numeric form, there must be pictures of objects, for example if it is a toy apple they must be able to see and touch it. Whatever you teach the must complete what they also do at home, because children with ASD gets confused when you change things- they do well with routine. You must teach them with 3D objects that they can see and touch.

Interviewer: How important is it to have a specialized professional (e.g., Speech Therapist/Occupational Therapist' Educational Psychologist or Physiotherapist) in the school with ASD learners?

Participant: It is very important. Remember when a child grow, they develops through stages and we are not doctors we cannot diagnose. When the child is admitted in the school you will discover that the child's report says they are ADHD, but when I look (with my little education) at the learner I will suspect that they are Autistic, so when we have them we are able to complete a form and submit in their office(make a referral) for re- **assessment.** Remember it's a process when you ask a parent to take their child to the hospital it's a process, as I have indicated that a child grows and develops, when you always call a parent to come take their children to the hospital, it's difficult for them because some do not have money. So having these professionals in the school will assist with saving parents money to go to the hospital regularly to have the child be assessed.

Interviewer: How does teachers' tertiary training prepare teachers to teach learners with ASD?

Participant: At tertiary we are just taught theory only and they don't go deep, you only find reality when you are faced with the child in practice. The theory sets foundation, but it is better than not getting anything at all, so that theory gives one foundation.

Interviewer: **At the training college- Do they teach you about different disorders such as Autism?**

Participant: When you start your undergraduate training, they just teach you teaching in general, it does not include anything about different disorders. It is only when you specialize at postgraduate level when they introduce you to different disabilities such as intellectual, Down Syndrome, Epilepsy, ADHD, and Autism.

Interviewer: Do they give you practical experience when you are doing postgraduate studies? I am thinking of teachers who work at mainstream schools where there are no learners with disabilities, I take they don't get to do practical exposure?

Participant? Yes, and at postgraduate they don't teach you practical unlike when you are still an undergraduate student you are send to the field to do practical's and the lecturer will come and assess you and give you marks. For example I did Diploma in teaching, then I enrolled for Diploma in special needs education and AAC, those are postgraduate qualifications, but we are never send to special schools to do practicals and get exposure on learners with disabilities.

We have a challenge of having learners with all different kinds of disabilities in one class, as a result the teacher ends up not how you can cater for them.

Interviewer: How does parental involvement support teachers when teaching learners with ASD?

Participant: Our learners' parents are illiterate, they were just blessed by a child with ASD, they do not have enough knowledge.. When they take their children to the clinic, it is not explained well to them about their children's disorder. That end up leaving the parent frustrated. It is us as teachers who should involve them regarding what these

learners are doing in the school. A learner with ASD must have the same routine and that routine must not change. So, it is important to involve parents in their children's learning. do not understand their children, they do not cooperate.

Some parents beat their children, and these affect the learner's performance-

There is no continuation of learner at home due to parents not cooperating. Parents must be trained on different disorders. These learners may not be able to become doctors or nurses, but just to teach them to listen and follow instruction-it is something. And as they grow, their behavior will improve.

Interviewer: How does legislature/Policy support teaching for learners with ASD?

Participant: Eish, up to so far, I don't see how they support us. If we were seeing them implemented, we would be far with lots of things. They are just on paper, but not implemented.

Interviewer: Are the enforced?

Participant: Not at all, our seniors are not being supportive, they are not supporting us, they are not supervising us. Firstly we do not have a curriculum.

Interviewer: We have come to the end of our interview, thank you for you time and participation.

10.9. Co-Coder Certificate

CO-CODER'S REPORT

This letter serves to acknowledge that **I MAPHAKELA M.P,** have co-coded 15 transcripts for **RALEBAPA KEORAPETSE LINDA (200721417).**

Tesch's data analysis method as described in Creswell (2009) was used, using the eight steps of a systemic process analysis of verbatim data.

TITLE: Challenges faced by teachers when teaching learners with Autistic Spectrum Disorder in Special Schools in the Capricorn District, Limpopo Province.

Data saturation based on the verbatim scripts was achieved. The Three themes and seven sub-themes that emerged from the analysed transcripts were agreed upon between me and Ms Ralebapa.

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03 JUNE 2023

Signature **Date**

10.10. Editorial Letter

Stand 507 Caledon Village, Cell +27794848449, Email: kubayijoe@gmail.com

11 August 2024 Dear Sir/Madam

SUBJECT: EDITING OF MINI-DISSERTATION

This is to certify that the mini-dissertation entitled 'Challenges faced by teachers when teaching learners with Autistic Spectrum Disorder in Special Schools in the Capricorn District, Limpopo Province' by RALEBAPA KEORAPETSE LINDA has been copy- edited, and that unless further tampered with, I am content that the dissertation adheres to editorial principles of consistency, cohesion, clarity of thought and precision.

Kind regards

Prof SJ Kubayi