Challenges Faced by Teachers of Dyslexic Learners in Public Schools in the Senior Phase at Ekurhuleni District in Gauteng Province in South Africa

by

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DECLARATION

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I declare that the above dissertation is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

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SIFANELE THEBE   **January 2022**

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DEDICATION

This work is dedicated to my late parents Peter Mazwi and Rosina Sibindi (MaFuyana) who instilled in me the value of education.

To my husband, my children, my grandchildren, my brothers and sisters for your love, support, prayers and for bearing with my busy schedule.

To my brethren and friends for still accepting me as a true friend and brethren despite the social time and fellowshipping I deprived you. Stay blessed!!

ACKNOWLEDGEMENTS

ABSTRACT

This study was conducted to determine the challenges faced by the Senior Phase teachers of dyslexic learners at Ekurhuleni district, to prevent inequalities, discrimination and inconsistencies in education. For this study, the qualitative method was used to focus on the subjective experiences of the participants. A phenomenological research design was used for this study. The constructivist paradigm was used for this study. Quantitative and qualitative elements were used during data presentation, analysis and interpretation.

The bioecological theoretical framework of Bronfenbrenner and Vygotsky's social constructivist theoretical framework were used for the study. The former states that a child finds self directly or indirectly interacting with various environments. The latter views a child as having cognitive structures that are still in the process of maturing. Teachers from 221 public secondary schools in Ekurhuleni district in Gauteng province formed the population of this study. It included African, white, coloured and Indian men and women. Purposive and convenience sampling methods were used for this study. Quester views and telephonic interviews were used to collect data from the Grade 8 and 9 teachers at the selected schools. The findings revealed that, the participants experienced challenges in teaching and supporting learners with dyslexia. Some participants were unable to define dyslexia, assess learners for dyslexia, lacked appropriate equipment, resources and knowledge to deal with learners with dyslexia.

Recommendations to handle problems about dyslexia are addressed to the Department of Basic Education (DBE), Designers of teacher training curricula, School Management teams, heads of departments, parents as well as teachers. (DBE) **to** train teachers and provide resources to assist dyslexics.

Key words: dyslexia, challenges, support, learning disabilities, dyslexics, train, appropriate resources, teaching, education authorities, responsibility

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ACRONYMS AND ABBREVIATIONS

CAPS   Curriculum and Assessment Policy Statement

DBE   Department of Basic Education

DBST   District-Based Support Team

DoE   Department of Education

GRST   Greek and Roman Studies

HOD   Heads of Department

IQ   Intelligence quotient

MKO   More knowledgeable other

QCA   Qualifications and Curriculum Authority (UK)

SBST   School-Based Support Team

SGB   School Governing Body

SMT   School Management Team

TIMMS   The Trends in International Mathematics and Science Study

UNISA   University of South Africa

ZPD   Zone of Proximal Development

CHAPTER 1: INTRODUCTION AND BACKGROUND TO THE STUDY

1.1 INTRODUCTION

Teaching and supporting learners with special educational needs comes with many responsibilities for teachers. Depending on their knowledge about the learning difficulties that learners might present with, some might be challenging to handle. Among the learning difficulties that learners in South Africa experience is dyslexia. The term dyslexia is made up of a Greek prefix 'dys' which means weak or inadequate and 'lexis' which means words or language: put together the term means "trouble with words" (Ott, 2007). According to the British Dyslexia Association (2005), dyslexia is a combination of disabilities and difficulties that can affect an individual's writing, reading, or spelling. These difficulties are in no way related to a learner's intelligence or socioeconomic background.

Ott (2007) was of the view that some teachers face challenges when dealing with learners that have learning difficulties such as dyslexia. These problems can take place in the teaching of all the subjects taught at schools such as English, Mathematics, and Science, to mention a few. Medina & Luna (2004) agreed that teachers are caregivers who are expected to be powerful resources for frustrated children. Sometimes this is not always the case as, teachers, too, may find themselves in a similar situation. Learners may have learning difficulties that could be going unnoticed. These can include failure to correctly copy work from the board or read instructions with understanding. These might form part of the challenges faced by teachers when learners do not perform as expected especially after all the teaching has been done.

Spaull (2013) commented that "It is game over by Grade three" meaning that if the learning difficulties that learners might be experiencing are not identified and addressed as early as Grade 3, learning might be difficult as the learner progresses to higher grades. This can be challenging to teachers who must deal with such learners at Grade 8 for example, considering that they have spent seven years at primary school, where this could have been dealt with. Spaull's (2013) study found that it was in the Foundation Phase grades that learners acquired learning deficits and if they were not dealt with, the problem became cumulative, making it more difficult to learn as the learner progressed to higher grades.

This calls for a teacher who will be able to diagnose what could be causing learners, for example, to write sentences or words that are incomplete, reverse letters when writing, fail to come up with answers to worded sums, copy work from a board or fail to follow simple instructions when playing a game (Cox, 1985).

As a way of addressing learning difficulties experienced by some learners, the Department of Education (DoE) (2001) in South Africa developed a policy document, called the Education White Paper Special Needs Education: Building an Inclusive Education and Training System No. 6 (EWP6). It aims at ensuring a learning environment that will cater to all learner needs, including those with dyslexia (Landsberg, Kruger & Swart, 2011). In this paper, the DoE outlined and accepted its responsibility to provide an inclusive environment that would ensure the support of learners with special needs such as dyslexia. After 1994, the education system in South Africa went through dramatic changes as a result of a change in government that needed to address inequalities and inconsistencies in learning. There was a shift in the system that emphasised critical values such as equity and non-discrimination to mention just a few which provided a framework for the Constitution (Landsberg, Kruger & Swart, 2014). Despite all the efforts being made, the purpose of the document cannot be achieved if the teachers do not have the necessary skills to deal with dyslexic learners; instead, they might face challenges in teaching and supporting them.

While teachers are expected to teach and support learners with learning difficulties, they have had challenges in dealing with such learners. Research conducted by Engelbrecht (2005) showed that teachers encounter problems not only in teaching dyslexic children but also in supporting them. This then calls for strategic measures to be put in place to address the challenges faced by the teachers when teaching learners with dyslexia. Despite all efforts put into ensuring that children are given a chance to attend pre-school where they are exposed to all sorts of activities to promote literacy, counting, and organising, some will still come out having difficulties in writing words or demonstrating specific skills correctly (Cantwell & Baker, 2003). There is a need to conduct this study to highlight the challenges that teachers face when teaching and supporting learners with special educational needs such as dyslexia. This will inform the education authorities on measures to take in supporting teachers so that they can render the necessary support to the learners with dyslexia.

1.2 RATIONALE FOR THE STUDY

This study was undertaken to find out the challenges experienced by Senior Phase teachers when teaching and supporting learners with dyslexia. Several studies have been conducted to answer specific questions about dyslexia. However, not much has been investigated on the challenges that teachers experience when dealing with dyslexic learners in the Senior Phase.

The challenges that teachers experience could be demoralising them, making it difficult to deliver services accordingly. In the Senior Phase, the learners are expected to demonstrate specific skills that require them to follow given instructions, read, write, and spell words correctly across a range of subjects. If a learner does not get adequate support to address dyslexia, teaching them at Senior Phase might be a challenge. At this stage, the teacher will be expecting that much support has been done over the previous seven years at primary school. According to Spaull (2013), if learners have a learning disability such as dyslexia, the gaps between what they know and what they do not know grow over time. This might result in their falling behind the curriculum. It could then be impossible for remediation to be successful, because of the learning gaps that have been ignored for a long time.

Teachers are most likely to be negatively affected as they will be expected to teach and support such learners. This calls for a need to investigate what could have gone wrong, pertaining to the teaching, and supporting of learners with dyslexia. Even though dyslexia does not affect a learner's intelligence, if they have reading or writing difficulties, chances are that they cannot perform well. This was noted in the TIMMS Mathematics 2015 results for 39 countries with South Africa being the second from the bottom (Mullis, Martin, Foy & Hooper, 2016). Poor performance of learners is a challenge to the teacher (Spaull, 2013). Thus, there is a need to conduct this study.

1.3 SIGNIFICANCE OF THE STUDY

By conducting this study, the challenges that teachers experience when dealing with learners with dyslexia will be addressed in many ways. Firstly, the results will motivate the education authorities to come up with ways to assist teachers in dealing with learners with dyslexia. This will be achieved through organising workshops that

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will equip them with knowledge and skills about how to identify, assess and intervene when confronted with learners with dyslexia. Learning will be promoted, and every learner will be accommodated in the learning process. By so doing, learning will take place in an inclusive environment, thereby fulfilling the Department of Basic Education's (DBE) responsibility of supporting learners with special educational needs. Furthermore, the authorities will be able to check and assist by filling gaps that might be going unattended at primary schools in terms of supporting dyslexic learners.

1.4 STATEMENT OF THE PROBLEM

Teaching and supporting learners with dyslexia can be a challenge to Senior Phase teachers especially if they have little or no knowledge about dyslexia. According to the policy document, EWP6 (DoE, 2001) learners with special needs are to be accommodated and supported in an inclusive education environment (Sukhraj, 2006). This might not always be the case if the teacher does not understand clearly how to deal with such learners. Teachers must understand the uniqueness of learners as well as their idiosyncratic ways of doing things. According to Leseyane et al., (2018), some learners feel that teachers seem not to realise that they have challenges. There is a need for teachers to give special attention to such learners. Learners might be expecting this kind of attention simply because they are not aware of what challenges the teachers might be having in addressing their problems. This motivated the researcher to find out what challenges the teachers might be facing in dealing with dyslexic learners.

1.5 THE RESEARCH QUESTIONS / HYPOTHESIS

The following primary question guided the study:

- What are the challenges faced by Senior Phase teachers when teaching learners with dyslexia?

The following are the sub-questions of the study:

- What is your understanding of dyslexia?

- How can you tell if a learner has dyslexia?

- What assessments are you using to determine if a learner has dyslexia?

- How can Senior Phase learners with dyslexia be supported?

- What challenges do you experience when teaching and supporting learners with dyslexia?

- What challenges do you experience when applying strategies to support learners with dyslexia?

1.6 PURPOSE, AIMS, AND OBJECTIVES OF THE STUDY

1.5.1 Purpose of the Study

The purpose of the study was to determine the challenges that are faced by the Senior Phase teachers when teaching and supporting dyslexic learners. This will help in devising intervention strategies to support both the learners and the teachers. It will also clear up the misconceptions that teachers, parents and other caregivers have about such learners. It will also bring to the attention of the education authorities ways to ensure that teachers are given the relevant skills to deal with learners with learning difficulties, as this will promote education for all.

1.5.2 Aim of the Study

- To establish the challenges faced by the Senior Phase teachers when teaching dyslexic learners to come up with strategies to support them.

1.5.3 Broad Objectives of the Study

- To determine the level of teachers' knowledge about dyslexia, its identification, assessment, and intervention.

- To find out the possible challenges encountered in teaching learners with dyslexia in the senior phase.

- To determine the challenges that teachers face when supporting learners with dyslexia in Grade 8 and 9.

1.6 RESEARCH METHODOLOGY AND DESIGN

According to Jonson Adkins & Chauvin (2020), the research design is the plan that a researcher uses to obtain answers to the questions under study. A phenomenological research design was used for this study. According to Creswell 2014, this design allows the researcher to describe the lived experiences of individuals from their point of view. It has a high degree of representativeness, making it easier for the researcher to obtain the participants' opinions. This study explored and examined the challenges that are faced by the Senior Phase teachers in teaching and supporting learners with dyslexia. Blumberg, Cooper and Schindler 2014 posited that a research design is a blueprint stating a plan that entails methods and data collection procedures, data collection, and data analysis.

1.6.1 Research Approach

For this study, the researcher used the qualitative research method. According to Creswell 2014, qualitative research aims at exploring and understanding how human beings ascribe meaning to social problems. This approach was chosen because it focuses on the subjective experiences of the individuals. It is also sensitive to the contexts in which people interact with each other. Mouton (2013) also viewed it as exploratory, and it is used to gain an understanding of underlying reasons, opinions and motivations of individuals or groups. It also provides insights into the problem.

Furthermore, it involves using open-ended questions in interviews and observations. Audio-visual data can also be collected in the participants' natural settings. Text and image analysis can be done through the inductive process, which focuses on the individual meaning and building themes from those meanings. The researcher then interprets the meaning of the data. Finally, a written report is produced (Creswell, 2014).

1.6.2 Research Design

This study used the phenomenological research design. According to Creswell 2014, the researcher describes the lived experiences of the individuals about a situation as described by the participants. It was used because it allowed for a profoundly detailed study. The goal of the design is to produce an intensive and authentic account of the experiences of individuals. The design constructs knowledge and

does not passively receive it. Pre-existing hypotheses do not bind it; instead, it allows for flexibility in the research procedures. Qualitative research methods include observations, interviews and document analysis (Denzin & Lincoln, 2018).

This research design allowed the researcher to focus on different types of questions that enabled the respondents to express their opinions about the phenomenon of dyslexia. The researcher was supposed to review learners' texts to identify the mistakes that they made in writing, spelling and finding answers to story sums. The researcher did not review their reading and assessment records as well as support plans and remedial record books as planned because of Covid 19 regulations that did not permit physical interactions. The researcher used the gathered data to describe the phenomenon as accurately as possible instead of passively receiving a pre-given framework.

1.6.3 Paradigm

According to Guba & Lincoln (1994), a paradigm or a worldview is a basic set of beliefs that guide action. This study used the constructivist or interpretive paradigm. Guba & Lincoln (1994) also asserted that social constructivists believe that individuals seek to understand the environment in which they live and work. They develop subjective meanings of their experiences directed towards certain objects. By using this paradigm, the researcher sought to establish the complexity of the views rather than narrow meanings. This can be achieved by relying on the participants' views about the situation under study. The meanings were not imprinted on the participants but were generated using broad and general questions using interviews, participant observations and document analysis. The constructivist paradigm allowed the researcher to inductively develop a theory or pattern of meaning (Creswell, 2014).

1.6.4 Population and Sampling

1.6.4.1 Population

Zikmund et al. (2013) defined population as a pool from which a researcher chooses a sample, which is representative of the larger group. The population of this study were teachers from 221 public secondary schools in Ekurhuleni South District in

Gauteng Province in South Africa. They included various race groups (African, white, coloured and Indian) and both men and women.

According to Creswell (2012), purposive sampling means the intentional selection of participants, who understand the central problem. In this study, the researcher assumed that teachers face challenges when teaching or supporting learners with dyslexia. This then makes them appropriate participants for the study.

Convenience sampling was also used, because the participants taught at the schools that allowed for easier access to the participants. Silverman (2013) concurred with this idea by stating that convenience sampling is a method of obtaining data by selecting people because of their easy access.

1.7 INSTRUMENTATION AND DATA COLLECTION TECHNIQUES

The qualitative method of data collection was employed in this study. Heap & Waters (2019) referred to such data as primary data as it is collected directly from the participants. A Google form was used to create written interview questions which allowed for the participants to respond to them in their own time. The participants remained anonymous since there were no emails involved and no sections on the Google form that required them to indicate their identity. A link with the research information, consent forms as well as the Google form were emailed to the school principals by the researcher. They were asked to share the link with the Grade 8 and 9 teachers who were willing to take part in the study.

It was the researcher's' initial plan to visit the schools during data collection period to check and make notes from the learners' exercise books to identify signs of dyslexia. This was going to help the researcher to determine whether learners followed instructions when carrying out activities. The researcher would tell if the learners were, for example, able to do word sums. Visual Arts activities such as drawing were going to inform the researcher as to whether the teacher was able to detect what the learners' problems could be; for example, it might be visual problems. Sometimes it might be that the learners cannot read given instructions or fail to copy work from the board properly. Covid 19 regulations did not permit visitors into the school premises.

Among other assumptions, teachers might be facing challenges in dealing with learners with dyslexia because they are not able to identify it. The researcher had planned to check the remedial and support records to establish how the teachers' supported learners with dyslexia. Failure to apply correct intervention strategies could also be contributing to their frustrations. Some of the information was to be obtained through lesson observations that included drama, dance, and physical education. The researcher was going to determine the triggers of the challenges that teachers face when teaching dyslexic learners. This did not take place because of Covid 19 rules that the researcher had to observe. The above-mentioned methods of data collection were also recommended by Creswell 2014 who suggested that open-ended questions, observations, document, text and image analysis are the main qualitative methods of data collection.

After two weeks the researcher started receiving responses to the written interview questions on the Google form. The results were analysed and interpreted followed by recommendations to the relevant departments. Zikmund et al. (2013) concurred with this by pointing out that after all the data has been gathered it is interpreted and recommendations are given.

1.8 LIMITATIONS AND DELIMITATIONS OF THE STUDY

1.8.1 Limitations

Limitations of a study are those characteristics of a design or methodology that impact or influence the interpretation of a study. The researcher has no control over them. The study explored the challenges faced by teachers when teaching learners with dyslexia and the limitations can be framed through looking at content, tools, research methodology and others (Leedy & Ormrod, 2013). The following were the limitations for this study: built in bias, repeating what has already been found by other researchers, perceived lack of rigour and time availability as well as Covid 19 regulations over which the researcher had no control. The researcher was not able to observe the participants in class in order to support the findings from other data collection tools. The teacher had no access to the progress as well as remedial records to check other factors causing teachers some challenges when teaching learners with dyslexia.

The research questions were designed by the researcher so they could inadvertently influence the results because of researcher bias. Qualitative research is entwined within the individual which makes it difficult to repeat qualitative studies as one cannot confirm or deny results of the original study. In this study, the teachers who participated were different from those who took part in other studies. Their environment was new and the challenges that were faced by the teachers in other studies might be different from the ones faced by the teachers that were used in this study.

The rigour of qualitative data is harder to demonstrate as it involves the qualitative analysis as opposed to scientific analysis. It is difficult to generate a unifying set of criteria for determining whether the researcher's work is truly rigorous. The research process can be long and tedious as the researcher must analyse every detail of the data collected. The presence of the researcher during the gathering of data can affect the participants' responses but it cannot be avoided.

1.8.2 Delimitations of the Study

According to Merriam (2009), delimitations of the study are those factors that the researcher has control over. These include the population that the researcher uses for a study. The population for this study was all teachers working at the 221 secondary schools in Ekurhuleni District in Gauteng Province. The sample for this study was 30 Senior Phase teachers from three secondary schools in Gauteng, in Ekurhuleni South and North districts.

1.9 DEFINITION OF KEY CONCEPTS

- Challenges are obstacles evaluated as opportunities rather than threats. A threat becomes a challenge when the individual's coping resources are adequate not only to overcome the stress associated with the obstacle but also to improve the situation in a measurable way.

- Dyslexia is a learning disability which is characterised by marked difficulty in learning to read, write, spell, concentrate, organise and remember sequences of words despite progress in other areas (Farrell, 2006; British Psychological Society, 1999).

- Inclusion is the kind of teaching that is designed to cater for various learner needs including those with learning difficulties (DoE, 2001).

- Inclusivity is a term whose meaning is closely related to inclusion and inclusivity. Inclusivity might further be explained as an intention or policy of including people who might otherwise be excluded or marginalised such as those who are handicapped (Landsberg et al., 2011).

- People with dyslexia are individuals with dyslexia as noted above.

- Special educational needs are learning difficulties which learners can present with, for example, dyslexia (Landsberg et al., 2011).

- Support is helping learners with an intellectual impairment to become as functionally independent and responsible as they can become (Landsberg, Kruger & Swart, 2014).

1.10 CHAPTER OUTLINE

- Chapter 1 Introduction and Background

Chapter 1 covered the purpose of the study and touched briefly on the literature that tells what other researchers say about dyslexia, its identification as well as its management. Bronfenbrenner's (1979) bioecological model and Vygotsky's (1968) social constructivist theory that were used as a foundation for the study were introduced. The statement of the problem followed by the research questions, aims and objectives of the study were spelt out. The qualitative research design and methodology were also highlighted.

- Chapter 2 Literature Review and Theoretical Framework

Chapter 2 looked at the literature on dyslexia, its definition, identification, assessment, and its management. It also highlights what other researchers said about dyslexia as well as the challenges that teachers face when teaching and supporting learners with dyslexia. In addition, two theoretical frameworks Bronfenbrenner's bioecological model and Vygotsky's social constructivism are described in detail and their relevance to the study is stated. These two perspectives explain how the development of an individual takes place.

- Chapter 3 Research Design.

Chapter 3 pertains to the qualitative research design and methodology as well as the research process that was used for the study. The qualitative research design determined the challenges that the senior phase teachers go through when teaching dyslexics.

- Chapter 4 Analysis and Interpretation.

This chapter covers the analysis and the interpretation of the data that was collected about the challenges that senior phase teachers face when teaching and supporting learners with dyslexia. The teachers' knowledge about dyslexia was noted in the teachers' responses. Data was interpreted according to the researcher's understanding.

- Chapter 5 Conclusions and Recommendations.

Chapter 5 addressed the discussion of findings, recommendations and conclusion of the study. The research questions were listed, and it was noted that they were answered through the responses given by the participants as well as the literature from other researchers. The findings included biographical information and were linked to the challenges teachers faced such as the kind of teacher training received. The participants' perceptions on dyslexia contributed much to the researcher's understanding of why they face challenges in teaching and supporting dyslexics, resulting in the recommendations made to address the problems.

1.11 CHAPTER SUMMARY

This chapter comprises of the introduction, the research design and methodology, data presentation and analysis and the conclusion. The introduction informs the reader what the topic under discussion is, highlights its significance and presents the aims and objectives of the study, its limitations as well as delimitations. The research design assists the researcher in checking whether the data collected will answer the research questions. Under data presentation and analysis there will be a discussion of the actual findings of the study as well as conclusions and recommendations. The conclusion will highlight and clarify the main points of the study. The next chapter concentrates on the theoretical frameworks that were used for this study, i.e.,

Bronfenbrenner's (1979) bioecological model and Vygotsky's (1968) social constructivism.

CHAPTER 2: THEORETICAL FRAMEWORK AND LITERATURE REVIEW.

2.1 INTRODUCTION

In the previous chapter, the researcher gave a background to dyslexia and a brief account of the challenges that the teachers faced when teaching and supporting learners with dyslexia. Suggestions for dealing with some of those challenges were highlighted, followed by the reasons for conducting this research. Chapter 2 presents the theoretical models that were used for this study and why they are relevant. In addition, there is a detailed discussion of the literature review about the challenges that are faced by teachers when dealing with learners that have dyslexia. Management of dyslexia is also addressed.

2.2 THEORETICAL FRAMEWORK

This study was based on the following two theoretical frameworks: Bronfenbrenner's (1979) bioecological theory as the main theory for the study, and Vygotsky's (1968) social constructivist theory as the supplementary theory. The theoretical frameworks are discussed in detail stating the reasons for their choices.

2.2.1 The Bioecological Theory

The bioecological model is depicted in Figure 1.1.
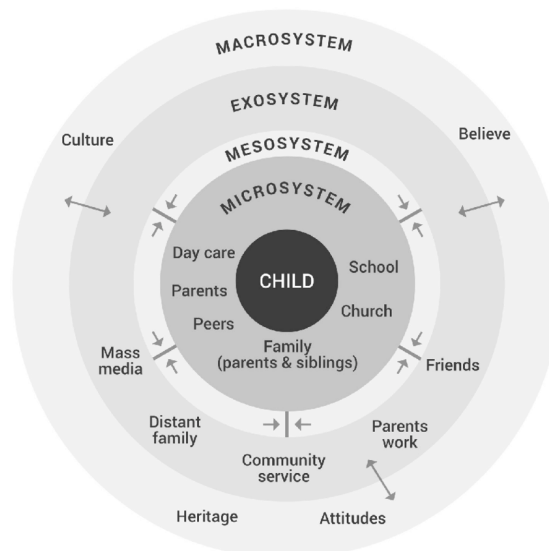
Figure 1.1: Bronfenbrenner's (1979) bioecological model

Source: Landsberg (2011)

According to Bronfenbrenner (1979), a child's direct and indirect interactions with their environment result in change, growth and development. A child is viewed as operating in many social contexts, environments or levels in what is regarded as a nested model. "Very simply, 'nested' means that one model is a subset of another" (Glen, 2017). These levels influence each other; for example, the child's experiences at the first level can negatively or positively influence their life at the following levels. As seen in the diagram above, there are four levels namely the microsystem, mesosystem, exosystem and the macrosystem (Landsberg et al., 2011).

To further explain the bio- ecological model, the two terms ecology and system are explained according to the Merriam-Webster Dictionary (2022a) which defines ecology as a branch of biology that deals with relations of organisms to one another and to their physical surroundings. A system is a set of principles that guide how something must be done (Merriam-Webster Dictionary, 2022b). In this context, the system is about the learner, teacher and others involved in the learning process. Abiding by the set principles of the teaching and learning process means achieving positive outcomes in the learning process but failure to adhere might end up causing challenges for the teachers and the learners.

The bio -ecological model is characterised by four interacting dimensions: the proximal process, person characteristics, systems or contexts and time (Landsberg et al., 2011). The following is the explanation of the four dimensions.

2.2.1.1 Proximal process

The proximal process is an interaction between the individual and the environment. It is a regular, progressive, and more complex reciprocal interaction between a living organism and immediate environment over an extended period (Landsberg et al., 2011). Patterns of daily activities, roles, and relationships in which teachers participate in trying to understand and understand the world is included in the proximal process dimension. Proximal processes are guided and affected by the characteristics of an individual in this case the teacher and the nature in which they occur (Smit et al., 2020; Swart & Pettipher, 2011).

2.2.1.2 Person characteristics

A person's characteristics are related to a developmental outcome. It influences the form, power, content, and direction of proximal process throughout development. The individual is expected to regularly interact over an extended period within the environment to assure development. In turn the environment must develop the individual. The individual's behaviour sometimes represents an outcome of how the individual interacts and responds to a particular context.

2.2.1.3 Context

The context pertains to the environment which development occurs and can also be referred to as environmental systems. These systems influence the individual's environment and are placed at the centre of all interactive systems (Landsberg et al. 2011). For this study, the teacher is placed at the centre of all interactive systems and context refers to the environmental systems which influence the teacher's environment. The interactive level includes the microsystem, the mesosystem, the exosystem and the macrosystem (Landsberg et al., 2011).

2.2.1.4 The chronosystem

The chronosystem is about social and cultural influences on development and individual development period within which proximal processes take place. Time can also mean time spent teaching or learning at school.

2.2.1.5 The microsystem

Landsberg et al. (2011) described the microsystem as a level that is made up of a pattern, activities, roles, and interpersonal relationships. These take place between an individual and their family, the school, and the peer group. It is in this system that the child learns about the world through face-to-face contact. The researcher understands the microsystem to concern what takes place on a small scale such as the family. The microsystem is about the happenings in the child's immediate environment such as home and school. At home, the child is introduced to the world by the family that includes siblings as well as the extended family. Language, rules, expected behaviour, family culture and the basics of life are among the things that

the child learns in the first years of life at home. Activities that take place around the child go a long way in determining their future interactions with the bigger world.

As a child grows there is physical, social, and psychological interaction with the environment. The child experiences a sense of belonging in the microsystem. Furthermore, they feels loved, supported and protected. It can be a different situation where the household is child-headed in that there might be no one to give the support that an adult would give. In some instances, a child might experience abuse in the family or at school. Sometimes they might find themselves homeless or in an environment where drug abuse is prevalent with no one paying attention to the situation. This might negatively impact a child's life. Either positive or negative experiences take place in the microsystem.

In the microsystem, the child experiences being loved, accepted and supported. If the child is deprived of these at this tender age, it might have long-lasting effects on their schoolwork. The child is likely to experience barriers to learning such as dyslexia. Teachers' knowledge of this theory will equip them in dealing with learners with learning difficulties to avoid challenges in the process of teaching and learning.

Their interaction can influence or be influenced by the relationships that the child has with the system. An example could be the guardian or parent's workplace changes. For example, if a parent is retrenched from work, there is an impact on the family's income that can result in non-payment of fees. Despite being unlawful (Isaacs, 2019), this may lead to exclusion from the school causing the learner not to fully attend lessons thereby missing some lessons leading to poor performance. Non-payment of fees can cause the learner some stress leading to difficulty in concentrating on their schoolwork and homework. The teacher then faces challenges in trying to motivate, teach and support stressed learners presenting with various problems including dyslexia.

Development begins with their immediate family in the microsystem. As they grow, their cognitive skills and performance increase. This cannot be understood outside of the context of a person's life, but network interaction, culture and other factors come into play.

The learner's peers, family and the school form part of the learner's microsystem. The family plays the role of introducing the child to the world before moving to school. There is the learning of a language, culture as well as values of the family and the surrounding. Language is used by teachers to teach concepts.

The experiences regarding the teaching and supporting of learners with dyslexia and possible challenges thereof within the school context of an inclusive school environment maybe be influenced by factors such as the teacher's attitudes, training, knowledge, teaching perspectives of the curriculum and delivery style (Engelbrecht, Savolainen, Nel & Malinen, 2013). Teaching and support that the teacher gives to learners with dyslexia are influenced by the kind of teacher training that the teacher received.

2.2.1.6 The mesosystem

The mesosystem is about the relationship that exists between two or more microsystems. The researcher understands the term 'meso' to mean middle. In this context, the interaction between a learner's parent and the teacher on a consultation day is the learner's mesosystem as the parent and the teacher are found in the learners' microsystems. This interaction can take place among the school, family, and the peer group, thereby modifying each of the systems (Landsberg et al., 2011). Another example to explain the mesosystem is the relationship between a teacher and a child who is from an unsupportive home. If this unsupported child gets to school, the chances are that they might develop possible barriers to learning but, if the teacher is supportive and caring, there can be a positive impact on their self-esteem as well as schoolwork.

In the mesosystem, the teacher interacts with the learners in the classroom environment. Both the teacher and the learners are part of the microsystem, and the classroom is the mesosystem. The way the teacher manages their class may influence the way they teach and support dyslexics. The skills and abilities of their classmates may have a negative or a positive impact on the teacher and the learners. It is in the classroom environment that the learning, teaching and supporting behaviour of learners with dyslexia can be observed.

2.2.1.7 The exosystem

In the exosystem, there is no direct influence between the learner and the system. This is something that takes place outside the child's other systems such as the micro- and mesosystem. The learner is not an active participant in the exosystem but can be influenced by the settings and relationships that directly influence them. Among these are the education system, the media, health services and the parent or guardian's workplace (Landsberg et al., 2011). For example, if a learner's parent or guardian is retrenched from work, the learner can present with learning challenges as well as problems with time management. In turn, these challenges can affect the teacher who will be expecting the learner to perform to the best of their ability.

The school environment is an exosystem and will directly or indirectly influence the teacher's experiences. In this system, the teacher gets an opportunity to interact with the learner's parents including parents of dyslexics. Others that the teacher gets to interact with are the Heads of Department (HODs), School-Based Support Team (SBST), the School Governing Body (SGB) members who form part of the school environment and directly or indirectly impact the teaching and supporting of learners with dyslexia.

The school principal, SMT and the HODs' expectations about the curriculum delivery style or the management of the classrooms, could influence the teachers' experience of the teaching and support of the learners with dyslexia in their classroom. The SBST and the HODs have must contribute to the management of the curriculum and support of the teacher in teaching learners with dyslexia.

2.2.1.8 The macrosystem

According to Landsberg et al. (2011), the macrosystem is about the cultural elements that affect a child's development. It focuses on how cultural elements affect a child's development for example social and economic structures, the attitudes, beliefs, values and socioeconomic status to mention a few.

The researcher understands the term 'macro' to mean a bigger scale in the life of an individual. In this case, the macrosystem concerns a learner's culture including beliefs as well as perceptions. Among the beliefs and values are social justice, equity, equality, freedom from discrimination as well as inclusion.

The nature and the interactions in other systems can be influenced by the macro system. Furthermore, it provides a structure and a content of the inner systems and is specific to a given culture at a specific time.

As a macrosystem, the DBE at national level provides guidelines and procedures for work for the schools' principals and the teachers. At district level, the DBE has education specialists that include subject advisors and the DBST that directly support teachers (DBE, n.d.).

The education environment sees to the implementation of acts and policies such as the EWP6 (DoE, 2001) which has a direct impact on the teachers' experiences of inclusion including teaching and supporting learners with dyslexia. The classroom environment, the school environment and the educational environment are intertwined. Through the interaction of these three environments, change takes place. The school and the teachers' growth and development depend on the interaction between the classroom, school and education environment and the relationship developing between the environments.

Education specialists, educational psychologists and learning support specialists provide support to teachers and learners with dyslexia and other learning difficulties. The DBST support schools by conducting training through workshops and seminars. (DBE n.d.; DoE, 2001).

Healthcare professionals such as educational psychologists and neurologists as well as The Red Apple Dyslexia Association (2016) are qualified to assess learners if they are suspected to have dyslexia or other learning difficulties, make a diagnosis and provide appropriate intervention to the learners. The healthcare professional with the learners' parents can make the teacher aware of what intervention strategies have been suggested for the learner with dyslexia (Bornman & Rose, 2010; Williams & Lynch, 2010).

From the four levels discussed above it can be concluded that Bronfenbrenner's ecological theory holds that individuals exist within different environments throughout their lifespan, and these can determine their development and can negatively or positively impact the way they do things.

2.2.1.9 Relevance of the bio- ecological theory to this study

The bio- ecological model is relevant to my study because it explains the multidimensional relationships between teachers who are teaching and supporting learners with learning barriers such as dyslexia, different education environments, and the interaction between learners, teachers and education environments (Swart & Pettipher, 2012). It spells out the need for teachers to teach and support learners with learning barriers including dyslexia. In addition, the bio -ecological model acknowledges that there are barriers to learning within society that affect the learners trying to reach their learning potential (Smit et al., 2006; Swart & Pettipher, 2011). Teachers should understand complex relationships between the learner, the school, education system, and the social and political context. A barrier in any of these contexts may affect the learning process (Engelbrecht et al., 2013). Teachers must ensure that learners participate fully in society as well as school no matter what their background (DBE, 2016).

According to this theory individuals operate within different environments in life that may influence their behaviour to varying degrees. This theory underlines the need to study how children grow in different environments known as the ecological system. The various systems interact with each other, thereby influencing how the child reacts to their environment that is the people around them.

This theory gives teachers an opportunity to understand human and social development. It also allows them to create a relationship with the learners and the parents. The teachers get to understand the need to create classrooms that are friendly and accommodative. Learners can learn better if they share ethnic background, language and race with the teacher or their peers but can perform differently if they notice that they are different to others.

According to Engelbrecht et al., (2013), personal beliefs and intentions complemented by their personality traits form the teachers' perspectives. Teachers must monitor their own beliefs, attitudes and behaviours when responding to diverse needs of the learners they teach. In addition, teachers need to respond to any inflexible curriculum delivery on learning and development. The teaching perspective and the personal characteristics of the teacher will shape the different methods of

curriculum delivery as well as their knowledge of dyslexia including how dyslexia manifests itself.

The dyslexic is influenced by the different learning environments and relationships in and outside the school. They may influence the way the teacher teaches and supports learners with dyslexia.

In addition, the bioecological model develops an awareness in teachers of their duty to ensure that all learners feel welcome and appreciated irrespective of their differences. Sometimes, if a teacher is aware of the different environments in which learners find themselves, teaching and supporting learners with learning difficulties will not be a challenge. The knowledge of the above-mentioned systems brings an understanding of the interactions and relationships that a person experiences with other systems that are connected to them.

This model promotes the collaboration of the teachers and parents as these form the child's microsystems. During their interaction, development and change take place in the child's school life. The kind of support that the teacher will give to a learner with a learning difficulty such as dyslexia will develop or fail the learner. It will depend, among other factors, on the support that the learner gets from their family. An example of working together of parents and teachers is an instance where a teacher gives a learner homework, there should be some feedback from the parent or guardian of the learner. This is another reason why the bioecological model is relevant to this study.

Furthermore, the bioecological model makes teachers realise their responsibility to establish a working relationship with the learners as well as parents. By so doing, the goal of supporting learners with dyslexia can be achieved. If a child is from a family that gives limited or no support at all, the chances of yielding the expected results are slim, leading to the teachers' frustration. The teacher will be expected to give more support (Landsberg et al., 2011). If there is very little or no support given by the teacher to the learners with dyslexia, the learners will struggle with certain concepts resulting in poor performance.

The other reason why the bioecological model is relevant to this study is that it helps in understanding the inclusive education pertaining to the development of individuals

within the systems. It explains developmental relationships between the individual, the environment, and the interaction between the two (Olivier, 2017; Swart & Pettipher, 2011).

The bioecological model is relevant to the study in that it talks to the different levels that influence an individual's development. In this case, it is about the development of the learners and the teachers and how their interaction influences each other. The teacher as the focus of the study is found in the classroom environment, the school and the greater education environment. All these environments influence the teacher's development and experiences in dealing with learners with dyslexia though they are indirectly involved in the study. Their presence can negatively or positively influence the development of the teacher. Also, the development of a learner with dyslexia can be influenced by the teachers' attitudes towards learners with dyslexia. The development of the teachers of dyslexics can also be influenced in the way they experience the school environment that includes learning problems such as dyslexia, and the stakeholders that are involved, such as parents, colleagues, the HOD, the SBST, the school principal as well as the SMT and the SGB. Working in an inclusive school, the teachers' attitudes and experiences to support learners with dyslexia can be influenced negatively or positively.

In addition, the bioecological model is noted to consider that both positive and negative internal and external factors could impact the teacher's professional and personal development. Positive internal factors could be personal characteristics that assist teachers in teaching and supporting learners with dyslexia. Positive external factors could be an inclusive school environment associated with inclusive education. A negative internal factor could be stress.

The bioecological model also involves parents of learners with dyslexia. Parental involvement may ensure that teachers can implement an academic intervention to support learners with dyslexia. Teachers can give feedback to the parents regarding progress of the dyslexic learners. Parents are generally not satisfied if they are not made aware of the learning challenges of their children at an early stage.

The SGB must ensure that it supports the smooth running of the school by working hand-in-glove with the school principal and all the staff members at the school. The SGB is supposed to support the school by ensuring that the teacher-learner ratio in

the classroom permits the appropriate teaching and learning of learners including those with learning difficulties such as dyslexia. The SGB must be involved in the recruitment and appointment of teachers and see to the remuneration of the teachers hired at the school in addition to those employed by the DBE (Mansfield-Barry, 2017)

If a teacher understands the different systems that learners experience, they will be able to understand the learners in class, making it easier to prepare lesson plans that will cater for the learners' different individual needs. By so doing there will limited or no situations, whereby the teachers will be held accountable for the learners' failure to cope with schoolwork.

With all the reasons discussed above, the bioecological model fits well in this study.

2.2.2 The Social Constructivist Theory.
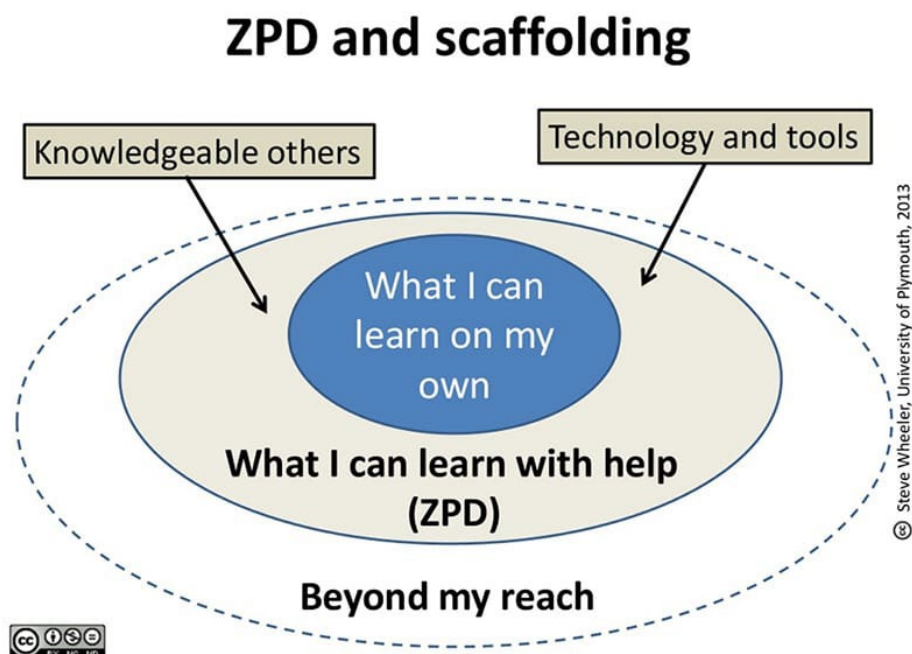
Figure 2.1: The social constructivist theory

Source: Vygotsky (1968)

Vygotsky (1978) is the proponent of the social constructivist theory. The theory is about, cognitive structures that are still in the process of maturing but can only mature under the guidance of or in collaboration with others. Vygotsky (1978) viewed

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cognitive functions as products of social interactions. Vygotsky (1978) viewed real objects as a human's special features of perception. He viewed the world not simply as a physical reality but existing in the mind of the knower who makes sense and meaning of the physical world. For learning to take place, there should be the integration of learners into the knowledge community and not only assimilation and accommodation of new knowledge (Supena, Darmuki & Hariyadi, 2021).

Creswell (2014) stated that social constructivists believe that individuals seek to understand the world in which they live and work by developing subjective meanings directed towards certain things. Vygotsky's (1968) social constructivist theory brings about the understanding that consciousness comes about because of socialisation. An example to explain this is the child's learning of a language. Children learn a language by socialising with their families. The first utterances with adults constitute communication. As the child continues to master the language, this allows for the development of inner speech or abstract thinking. Inner speech is known to play a role in the development and maintenance of human self-awareness (Morin, 2018). With dyslexic children, it appears that the development of such inner speech may be delayed, leading to difficulties in achieving the grade and age-level reading skills that are necessary for successful functioning in school and society (Centanni, 2020).

According to Creswell (2014), human beings construct meaning as they engage with the world. In this research, the findings will be made on how learners interact with their environment that includes their teachers, families, peers and school. They make sense of the world based on their historical and social perspectives, as we are all born into a world of meaning bestowed upon us by our culture. Vygotsky (1978) pointed out that "every function in the child's cultural development appears twice". Firstly, it occurs between people and then occurs within the child thereby contributing to the formation of concepts.

Learning is transmitted by means of language and is interpreted and understood through the interactions, discussions and the sharing of knowledge under the guidance of a teacher. According to Vygotsky (1968), language and culture are frameworks through which humans experience, communicate and understand reality.

Vygotsky (1968) distinguished between two developmental levels, namely the actual development and the potential development.

2.2.2.1 Actual development

In the level of actual development, the learner can solve problems independently. (Deslauriers, McCarty, Miller, Callaghan & Kestin, 2019). It means that the learner does not need the help of a peer, teacher, parent, or any other person but is able to tackle the problem.

2.2.2.2 The level of potential development

This level is also known as the ZPD. Vygotsky (1968) defined it as development that occurs under the guidance of an adult such as a teacher or in collaboration with more capable peers. There are cognitive structures that are in the process of maturing and, can only mature under such guidance and collaboration with others. The ZPD allows a learner to go through temporary support given by what he termed a more knowledgeable other (MKO). The quality and quantity of support can be adjusted to match the student's level of performance. Support can go on until the child can do the task independently.

Scaffolding is an element of the ZPD. It is when students are supported by the teacher throughout the learning process. Ideas are introduced step-by-step building on each prior step and knowledge. By breaking up the learning into chunks the learners can master concepts and skills much easier. The concept of scaffolding pertains to what students are unable to do, what they can do and what they are able to do with assistance. Reading can be scaffolded by previewing text, discussing key vocabulary, chunking the text and then reading as the lesson unfolds. By so doing the learners become independent and can solve problems on their own (Hasan & Ahmad, 2018).

According to Vygotsky (1968), interaction and conversation are crucial for learning to take place. Adult guidance or peer collaboration is helpful in addressing the various learning difficulties. Through interaction, learners gain understanding of concepts that might be challenging them. Sometimes teacher find themselves with different learner problems making it difficult to allow for collaboration and one-on-one learning; however, because of policy prescriptions such as those set down by the

DBE in the CAPS curriculum and scripted lesson plans (Dlova, 2019), teachers are forced to hurry over the lessons depriving learners of interacting freely to arrive at answers to the learning problems.

2.2.2.3 Relevance of the social constructivism theory to this study.

The social constructivist theory is appropriate for this study because it concerns collaborative learning. The problem is that teachers must work according to a timetable set out by the DBE, even to the extent of pre-planned, stylised and standardised lessons for the learners. These aim at ensuring that the lessons and concepts to be taught are introduced and explained by the teachers within the stipulated time; for example, 30 minutes. This does not leave time for learner collaboration. The lecture type of lesson delivery can be monotonous to the learners causing them not to participate well and resulting in the teachers' frustration. Teachers need to be aware of theories that promote collaborative learning to avoid boredom and to promote the teaching and learning process so that no learner is left behind. Otherwise, the teachers will face challenges in dealing with learners with learning difficulties such as dyslexia.

The social constructivism theory promotes teaching methods that are learner-centred making it possible for the learners to find answers to problems by themselves with the help of the MKO such as the teacher or their peers. Learners will be able to construct knowledge on their own through active participation, enquiry, and discovery without the teacher spoon-feeding them the knowledge. Thus, the teacher needs to adapt the one-size-fits-all type of lesson plan provided by the DBE to cater for individual needs.

During interaction, knowledge is constructed as individuals will be learning from each other. An example of such an interaction can be the interaction their peers. A learner can be guided into knowledge by a teacher, a peer or by family members and can also do certain things without being guided.

Learners seek to understand the world in which they live and work by developing subjective meanings directed towards certain things. During interaction with their environment that includes their families, peers and the school, to mention a few, learners make sense of the world based on their historical and social perspectives.

The theory helps the MKO to realise that cultures differ and that it would be improper for them to use the development experiences of children from one culture as a norm for children from other cultures.

Vygotsky (1978) viewed social interaction as an aid to promote development. When a learner interacts with teachers, family and peers, development takes places. For example, the learner can develop certain skills such as listening. Such a skill promotes learning as it involves following oral instructions when doing activities. The social constructivist model allows the researcher to use more open-ended questions.

Vygotsky (1968) emphasised the following important components that can promote the learning process at the ZPD:

- Presence of someone more skilled than the learner.

- Social interaction between a learner and a skilful teacher so that the learner can learn by observing them; and

- Supportive activities provided by the educator or a more competent peer to support the learner.

The teachers can apply Vygotsky's theory when preparing lessons. It helps them to think through the knowledge and skills that their students are expected to master. The teachers become aware of the order in which to teach these skills. Bada and Olusegun list some constructivist classroom activities as follows:

- Reciprocal teaching and learning. This allows learners to teach each other.

- Inquiry-based learning whereby, learners pose their questions and carry out some research and observation to find answers.

- Problem-based learning; and

- Cooperative learning.

The constructivist's view of teaching and learning is about active learning, where learners are involved in the process and not just receiving information from the teacher. Learning should be subjective and not objective (Stark, Gruber, Renkl & Mandl, 1998). Activity (practice), knowledge (concept), and context (culture) can

contribute to the achievement of learning making it meaningful and lasting (Fischer, Fishman, Dede, Eisenkraft, Frumin, Foster, Levy & McCoy, 2018). The teacher is called upon to encourage teamwork for example, when dealing with learners with learning difficulties such as dyslexia. Debates and discussions should be promoted as they assist in sharpening skills such as speaking and listening. The learners will need to see models of good practice. The teachers will have to demonstrate such or make use of some learners who possess the skills.

2.3 LITERATURE REVIEW

This section is looking into what other researchers say about the challenges that are faced by teachers when dealing with learners who have dyslexia. Creswell (2012) viewed a literature review about sharing the findings of other studies being done. It also fills in gaps and extends knowledge of the study.

2.3.1 Definition of Dyslexia

Miller (2015) stated that dyslexia is a Greek word made up of '*dys*' which means poor and '*lexia*' which means words. Put together the term means "difficulty with words" (Parveen & Baig, 2021). It can present problems in the short-term memory as well as expressing thoughts. According to the International Dyslexia Association (2002) dyslexia was defined as a specific learning disability that is neurobiological in origin. It does not affect a person's intelligence. It concerns the way people process information and how that affects their ability to learn. According to the International Dyslexia Association (2002), individuals with dyslexia can have strengths, talents, and can be creative in many ways. The term dyslexia is understood by the researcher to mean more than just a reading problem. It can also be seen in poor demonstration of some skills such as organisational and time management.

In addition to the given definition, Chinn et al. (2017) viewed dyslexia as a learning difficulty that affects skills that pertain to accurate and fluent word reading. It also affects spelling and mental calculation. The Yemen Dyslexia Association (Al Hakeemi, 2015) concurred with this definition by stating that dyslexia is the functional disorder of the left side of the brain and causes difficulties in reading and mathematics. It makes an individual forget mathematical procedures especially when they are complex, for example, long division.

2.3.2 Description of Dyslexia

Dyslexia is known to be the most common learning disability that persists throughout life. The sooner it is attended to the more favourable the outcome. Despite the many studies that have been carried out to determine what its cause could be, it remains unknown. It reflects a natural variation in the brain function that predicts an unexpected learning difficulty (Nicholson & Fawcett, 2010). It is neurobiological; that is, it pertains to the chemicals and electrical impulses in the brain. The nerves oversee transmitting impulses to the brain, spinal cord and other body parts. It is a disability that cannot be generalised to all areas of learning. Intelligence quotient (IQ) is not a factor in diagnosing dyslexia. If an individual cannot read because of poor instruction that does not imply that they are dyslexic (Reid, 2013).

An individual with dyslexia tends to have problems differentiating between sounds. As a result, a learner finds it difficult to put various sounds together to form speech. Spelling, word recognition and decoding abilities are other challenges that are faced by dyslexics. Decoding is the process of turning communication into thoughts. (Yourdictionary.com, 2021). Dyslexia includes problems in reading comprehension and reduced reading experience that can impede the growth of vocabulary and background knowledge. Poor development of vocabulary is another sign of dyslexia, which can negatively affect comprehension.

Among the possible signs of dyslexia are difficulty with spelling, reading, writing, or following instructions carefully when carrying out experiments. Dyslexics tend to reverse bs and ds when reading (e.g., boom and doom) thus leading to confusion in meaning. They also get sequences in the wrong order; for example, January March February instead of January, February, and March (Leong, 2005). They can experience difficulties in reading because of visual or hearing disabilities, culture or insecurity. The individual with dyslexia may have an efficient working memory or short-term memory. This means that a dyslexic can have problems with the amount of information that can be held and processed at a given time in the conscious memory (Miller, 2015). There is also difficulty in the processing of visual and auditory information as well as coordination of messages, as the brain might send wrong signals to the different parts of the body (Miller, 2015).

Reid (2005) highlighted the importance of neurological connections such as the integration of different skills such as visual, motor, auditory, kinaesthetic integration as in listening and carrying out instructions. Dyslexics tend to have poor handwriting because of fine motor and gross motor difficulties. Some have a challenge in remembering things and when tasked to do something that needs too much concentration, they tend to become exhausted quickly and do not have the energy to strive for success. Dyslexia represents more than a reading problem, but if a teacher views a learner as having discipline or personality problems without any formal assessment, it can be difficult for them to teach such a learner. On the other hand, children and learners with dyslexia have strengths and talents that can be used to compensate for difficulties (Leong, 2005).

2.3.3 Causes of Dyslexia

Dyslexia is thought to be caused by impairment in the brain that makes it unable to process phonemes. Phonemes are defined as the smallest units of speech that make words different from each other (Moore & Skidmore, 2019). Dyslexia is not a result of mental retardation and is not related to a person's intelligence. It is not caused by any physical impairment such as visual or hearing. It presents itself in the form of a learning disability that can be seen, for example, through a learner's inability to order things (Kalsoom, Mujahid & Zulfqar, 2020).

2.3.4 Management of Dyslexia

Like any other disability, there should be ways of managing dyslexia so that learners who are dyslexic are also accommodated in the learning process. Research has shown that about one out of 10 people in South Africa is dyslexic. This was mentioned at the Dyslexia Awareness conference hosted by the Mail & Guardian in 2013. This calls for support to be rendered to the deserving individuals in line with the barriers presented. Doing this would relieve some of the stress in the teaching and learning process (Landsberg et al., 2011).

Before finding ways of dealing with a problem, it is necessary to first establish what the problem is. The same goes for dyslexia. Reid (2005) suggested identification, assessment as well as curriculum planning as some of the steps that can be taken in addressing barriers to learning including dyslexia.

According to Reid (2013) teachers should ensure that a suitably differentiated curriculum is accessible to all learners so that they are afforded the opportunity to develop and apply their strengths. She further stated that able children with dyslexia may underachieve despite their academic potential; thus, the need to have additional support. If the teacher is not able to identify the individual learner's needs it can be difficult to give appropriate support. Teachers must devise ways to promote learning and make use of evidence-based learning theories to support learners with dyslexia and other learning difficulties. Teachers need to be facilitators of learning processes and not impose knowledge on learners but ensure that knowledge is generated through collaboration with others such as their peers.

There is need for the teachers to adopt a range of methods of teaching and supporting learners with dyslexia. Vygotsky (1968) suggested that for successful learning to take place there must be conversation and interaction and that teachers need to guide learners to get to the level of potential development. In addition, the teachers need to create classroom environments with resources that will boost knowledge construction. By so doing there will be fewer challenges faced by teachers when teaching and supporting dyslexics. Differently skilled learners can learn from each other, and the teacher can provide scaffolding support where necessary. Teachers need to encourage development of skills so that learners do not sit down and wait to be informed but must discover solutions to their learning problems by themselves.

The DoE developed the Education White Paper No 6 (2001) which advocates for inclusion. It aims at ensuring a learning environment that will cater to all learner needs, including those with barriers to learning such as dyslexia (Landsberg, 2011). This document promotes learning for all, and it is illegal to discriminate against learners with impairments; for example, in admission to schools or not providing adequate teaching resources (DoE, 2001). Reid (2013) suggested that the curriculum that is used should cater for all learners and be adapted where necessary.

Ewing, Monsen & Kielblock (2018) and Monyai, Ramapela & Ramollo (2019) pointed out that inclusive education aims at promoting equity, justice and quality education by ensuring that all children have access to education irrespective of their gender,

ethnicity, or disability. Maguvhe (2015) alluded to inclusive education as a transformation and human rights tool for recognising the need to accommodate the previously excluded learners. As a redress instrument, inclusive education comes into play when those learners who have been denied their opportunity to learn because of disability are accommodated (Lebona, 2013; Monyai et al., 2019).

Teachers should aim at having an attitude that will promote inclusivity. If proper measures to promote inclusive education are put in place both, the teacher and the learner will benefit from it. Monyai et al. (2019) noted that inclusive classrooms have been seen to be beneficial to both the learner and the teacher. It means that the learner will receive appropriate support that will enable them to learn. Nonetheless, while inclusive classrooms are effective, they are challenging. They call for a collaborative effort by teachers as well as supporting staff in ensuring thorough and appropriate lesson preparation. Kapur (2018) alluded to this by stating that social construction of knowledge takes places in various ways and places. It can be through a group, discussion, teamwork, or other instructional interaction and, as the learners interact, they gain knowledge in an inclusive classroom where learners with learning difficulties can get support.

The UK QCA noted that the purpose of inclusion is to secure appropriate learning and assessment of learners so that they are fully involved in the learning process. Wade (2001) further stated that the responsibility of regular schools is to accommodate the diverse needs of all learners; by so doing, they become fully involved in the learning process. This then calls for teachers to have sound theoretical knowledge on how to teach and support learners with disabilities like dyslexia. The knowledge acquired will help them make informed decisions when faced with learners with special educational needs which then results in every learner being actively involved in the learning process.

Inclusion is not only about special needs and disability: it is mainly about reform that promotes equality and collective belonging as it embraces diversity (Florian, 2019). The question is how practical this will be in a situation whereby teachers have certain misconceptions about the learners that they are supposed to support. The school authorities and the DBE need to find ways of assisting the teachers in dealing with such learners. Special education training will arm them with the tools to use in

meeting the individual learner's needs. If this is not done, it means that the teachers will continue to struggle to teach dyslexics.

Leseyane et al. (2018) pointed out that learners with dyslexia do not need a specialist for successful learning to take place, but that the process of learning and teaching needs to be broadened to include such learners. Inclusion calls upon every school to cater for the different learning needs of everyone. To be able to teach and support learners with dyslexia, every teacher should be well informed about what dyslexia is all about. This includes training and supplying of materials necessary for teaching learners with special needs.

Peer & Reid (2016) stated that with special learning difficulties that include dyslexia, the challenge that has been noted is the issue of separate strands of expertise. Chernek (2016) stated that students with disabilities may require various accommodations to support and to improve skills such as reading to mention just a few. Whitson (2015) commended the South African public education system for proposing inclusion whose sole intent is to address the deficiencies that learners have. Supporting the learners with a learning impairment will enable them to function independently and responsibly as they can become.

2.3.5 Challenges Faced by Teachers in Teaching Learners with Dyslexia

From the researcher's observation, most psychological theories of understanding learning view problems as being centred within learners. This reflects the medical model of disability (Hogan, 2019) which has been heavily criticised in recent years. There is very little that is said about the teachers and other related problems – the social model of disability (Barnes 2019) which states that the problem lies not within the child but within the society that creates barriers to learning. There is a need for intervention for both learners and teachers so that at the end of the day, teachers are well equipped to address learning difficulties that learners with dyslexia have. By so doing, the learners will be able to perform to the best of their abilities.

With little or no support, teachers are likely to face challenges when teaching and supporting learners with learning difficulties. The following are some of the challenges that are faced by teachers when teaching and supporting learners with dyslexia.

2.3.5.1 Teachers' ignorance about the disability

Teachers need to be able to identify and assess learners that have learning disabilities such as dyslexia. If the teacher is ignorant of the underlying problem, it will be difficult for them to give appropriate support to the learners with dyslexia (Peer & Reid 2016). For the teacher to teach and support learners with dyslexia, they should first understand what dyslexia all is about. By so doing, misconceptions such as regarding dyslexics as stupid or lazy will be done away with. Reid (2013) suggested that dyslexia can be sometimes misinterpreted for laziness or lack of interest in schoolwork. A comment was once made that if people cannot even decide on a definition, how can those who suffer from dyslexia be identified? (Bell & Mclean, 2016). This can lead to anxiety and frustration, especially to those who view teaching as a profession that is the most stressful (Carton & Fruchart, 2013).

This can frustrate the learner and, in turn, be a challenge to the teacher who might end up developing a negative attitude towards the learner without probing to see what the root cause of the learner's behaviour could be.

Alawadh (2016) noted that dyslexia should not be looked at as only representing difficulty with reading and writing but it can also affect organisational skills. This can be frustrating to the teacher bearing in mind that a child with such a learning disability will not be the only one in the class, but all the other learners also need the teacher's attention.

2.3.5.2 Lack of resources, materials and a conducive learning environment

There are often deficiencies in infrastructure. Appropriate teaching materials make a classroom atmosphere friendly for all the learners. Inadequate or inappropriate equipment to use in the classroom when dealing with all the learners including those with special needs such as dyslexia might become a challenge to the class teacher. It was recommended by Heraty, Mac, Mulligan, O'Malley & O'Neill (2021) that the following equipment should be available for students with dyslexia: highlighters, coloured paper, squared paper, post-its, 2-line calculators (which display input and output), as well as software like speech recognition software, text-to-speech software, mind mapping software, scanning software, hand reading pens and spellcheckers among others.

In addition to the challenges mentioned above, teachers face a lack of resources and materials to use in the teaching and support of dyslexic learners (Mackay, 2004). Reid (2013) pointed out the need for the availability of specialised resources and concurred with the above by pointing out that support should be given in the classroom with dyslexia-friendly standards. Failure by the school authorities to provide such classrooms might make it difficult for the teachers to teach and support dyslexics.

If teachers do not get adequate training on the use of the resources and materials, it means they will remain unequipped making it difficult to assist learners with learning difficulties. Lesenya et al.'s (2018) study revealed that the lack of appropriate facilities makes it difficult for the teachers to deliver quality teaching and support to learners with learning difficulties. The teacher is likely to be frustrated if the learning environment is not conducive to learning. As part of the learner's environment, the teacher must devise approaches and materials that are relevant to what is being taught. They should not ignore modern technology that has taken today's learners by storm. Using the traditional resources of a paper and pen might not stimulate the learners' interest in learning.

Reid (2020) noted that the teacher needs to ensure that learners are comfortable in their learning space to avoid stagnation and regression. Otherwise, if the environment is not conducive to learning, learners might communicate indirectly with to the teacher by absenting themselves from school or pretending to be sick.

2.3.5.3 Lack of support by parents and guardians

If parents and guardians do not physically support learners with their homework, they can be psychologically and emotionally affected (Pastoriko, Hidayati & Rasmuin, 2019). Their success will depend on the effort that the teacher, parents and everyone else that is involved in their learning put. The learners' preparedness to receive support that is given to address their different needs also goes a long way in addressing their learning difficulties.

2.3.5.4 Curriculum changes in the South African education system

The continuous changes in the South African school curriculum add strain to the teachers. From 1994 to date, South Africa has had four different curricula with each

being introduced by successive Ministers of Education (Govender, 2018). Teachers are expected to teach some new concepts and follow certain methods and approaches when planning and delivering their lessons. At the same time, they must give support lessons to learners with learning difficulties such as dyslexia. As if that is not enough, they are still expected to go through training on the new curriculum to avoid a situation whereby they find themselves having to teach concepts that they do not understand.

Reid (2020) pointed out that the curriculum may not always promote the learning of dyslexics or accommodate their needs. The teachers must tailor the approaches and lessons so that they are dyslexia friendly. At the same time, they are expected to gear them to the requirements of performance such as examinations.

Monyai, Ramapela & Ramollo (2019) noted out that the education curriculum should aim at preparing future teachers to recognise information and technologies as enablers of their professional learning and development. They are also regarded as the main drivers of pedagogical practice for student-cantered teaching in inclusive classrooms. Uerz, Volman & Kral (2018) noted that even though curriculum studies are ongoing, there is not much on guidelines or models to equip teachers and practitioners about the effective ways to implement the policies or understand the terminology associated with the curriculum.

Without proper guidance, teachers will be frustrated by teaching and supporting learners with dyslexia. According to the British Dyslexia Association (2005) and Gaad (2015), schools should not view dyslexia as a learning deficit but a learning difference since the practice includes inclusion, planned intervention, and learning. In addition to all the training that the teacher must do, there is still more that the teacher must learn about teaching and supporting learners with dyslexia. Thus, the teacher faces challenges of trying to accommodate all the information about the new curriculum, the subject matter as well as strategies to deal with learners with learning difficulties.

Teachers are expected to deliver the properly designed lessons according to the individual needs of the learners with dyslexia. Reid (2020) was of the view that for adequate support to be given to the dyslexic learners, there is a need to tailor lessons to meet the individual learning difficulties. By so doing learners will reach

their potential. Miller (2015) highlighted that inadequate teaching methods and the inability and unwillingness of the teachers to understand the individual needs of the learners could be the real problem why learners do not get full support. The teacher must craft lessons that will accommodate individual learner needs and avoid one-size-fits-all kind of lessons. This can be a challenge if the teacher has no idea about what sort of lessons to craft for such learners.

Some of the requirements of the curricula put a lot of pressure on the teachers as well as the learners in many ways. When looking at Curriculum 2005, for example, it involved the cut and paste activities. Learners were not prepared for formal assessment or life outside the classroom. Having to formally assess learners doing such a curriculum can be challenging for the teacher. First, they must try and help the learner to unlearn some of the practices and be better equipped for assessment. Learners are expected to do assessments no matter the learning difficulties they present with. Furthermore, this curriculum emphasised on developing learner's skills and attitude thereby, placing much demand on the teachers in terms of planning into complex teaching approaches. Attending to individual learners' special educational needs became a challenge. Though the Revised National Curriculum Statement was still prescriptive in terms of content, it allowed teachers to move according to the pace of the learners.

Stols (2013) found that, in South Africa, some challenges that teachers have in teaching and supporting learners with dyslexia include lack of curriculum materials, teachers' qualifications and lack of professional development, let alone a safe learning environment. The teacher needs to have the pedagogical content knowledge to be able to allow the learners to learn. Deng (2018) explained pedagogical content knowledge as that knowledge which goes beyond subject matter knowledge. This was echoed by Mji & Makgato (2006) who stated that if teachers lack such knowledge, the learners they teach are likely to underperform, as they regard such teachers to be under-qualified or unqualified. This means that if the teachers lack knowledge about dyslexia, they are likely to get stressed as they will fail to deliver lessons appropriately. This leads to potential learners being ignored or labelled as being dull, while this may not be the case. Often, there are hidden learning difficulties that need to be diagnosed.

2.3.5.5 Teachers' knowledge of inclusive education

It can be a challenge for the teachers to teach and support learners with dyslexia if they are not prepared to deal with learners with special educational needs. The teacher should create a conducive learning environment that will cater to all the individual special needs of the learners (Buli-Holmberg & Jeyaprathaban, 2016). Also, the teacher should be prepared to take extra special education lessons so that they receive proper training that will equip them in preparing and delivering appropriate lessons. Failure to do this might result in challenges when teaching and supporting learners with dyslexia.

2.3.5.6 Language of teaching and learning

It is important that the teacher understands the languages of teaching and learning so that it becomes easy to communicate with the learners, teach and support them (Tavoosy & Jelveh, 2019). If the teacher is not well-versed in the languages of learning and teaching in the classroom, then they are likely to face challenges.

2.3.5.7 Lack of empowerment of teachers

For teachers to effectively teach and support learners with dyslexia, they need to have the relevant skills. If they are not sufficiently empowered, challenges can arise. There is a need for the teachers to be trained on how to deal with learners with learning disabilities. Little or no training in teaching and supporting dyslexics might create problems during assessment. The teachers are likely to fail to use the correct procedures for assessing learners with special educational needs. Lack of empowerment might make teachers lose confidence in delivering lessons or in rendering support to learners with dyslexia. The inability to apply appropriate intervention strategies to the dyslexics might prevent some of them from teaching as well as giving support on things that they do not understand (Carton & Fruchart, 2013).

2.3.5.8 Teachers' expectations

There is much strain for the teacher when teaching; for example, a Senior Phase learner who presents with dyslexia. Generally, teachers will be expecting that when learners get to this stage, they have succeeded in the Foundation and the

Intermediate Phases at primary school and are expected to have received adequate support to deal with dyslexia-related problems. Peer & Reid (2016) viewed the transition from primary to secondary school as creating increasing pressures on literacy, coupled with a changed conceptual load of the secondary curriculum (Cummins, 2000). According to Ogba (2020), the high school curriculum exerts too much pressure on the learners, and it might be difficult for them as they progress to higher grades. On the other hand, teachers might be expecting the learners to perform better than they did in the lower phases.

2.3.5.9 Teachers' knowledge of different cultures

The teachers' ignorance of various cultures is likely to create some challenges for teachers. Knowledge of cultural diversity is a requirement for the teacher to treat all learners fairly and deliver lessons accordingly to their diverse needs. There is need for teachers to incorporate diversity and cultural awareness in the classroom. With learners from different backgrounds with different learning needs such as dyslexia the teacher needs to show an interest in getting to understand the learners' cultural backgrounds, learning styles, their uniqueness, hobbies. A bond will be formed between the learners and the teacher if the learners feel accepted and comfortable thereby promoting communication and learning in an inclusive classroom (Ketikidou & Saiti, 2022).

For teachers to need to avoid discrimination, they are also expected to exercise justice by making sure that all the learners receive fair and equal treatment. No learner should be discriminated against because of their culture, gender, religion, or disability. All children including those with special needs belong to a specific culture. The teacher should be prepared to understand and accept all learners irrespective of their different cultures. Furthermore, they need to accommodate all the learners no matter what their family economic status, racial differences and differences in their countries of origin are. Failure to accommodate all learners might result in the teacher's frustration as the learners could decide to be uncooperative.

Reid (2020) stated that no learner should be psychologically intimidated by the teacher or degraded or shown any form of disrespect. All learners must get fair and equal treatment irrespective of their culture, gender, religion or other factors. The teacher should not deny the learner the opportunity to participate in any of the

planned class activities (Florian & Beaton, 2018). Failure to treat all learners with respect might cause them to negatively respond to the teacher, and this kind of response might result in the teacher's frustration.

2.3.5.10 Learners' reading problems

Realising that in almost every subject reading must take place, it can be a challenge, for example, for a maths teacher to help a learner to solve a word sum if they have reading problems. This becomes a challenge to the teacher in the sense that before helping a learner to calculate an answer or carry out an assessment, the learner needs to be taught how to read. A learner in the Senior Phase is expected to read and follow instructions to solve problems. Anderson & Meier-Hedde (2017) pointed out that children learn to read up to the 4th Grade and from there they read to learn. This shows that a Senior Phase learner is expected to read to learn. However, teachers find themselves having to shelve the maths lesson and concentrate on teaching reading instead.

2.3.5.11 Teachers' workload

Teachers are expected to motivate learners to learn and still support them according to their learning difficulties. They must ensure that no child is left behind. They have curriculum expectations that they must meet. Monyai et al. (2019) pointed out that classroom teachers face the challenge of having to meet a wide range of learner needs through inclusive practice. Teachers find themselves having to teach concepts that they do not understand; as a result, it becomes difficult for them to deliver lessons. They are expected to teach learners in a manner that will enable them to make decisions through creative and critical thinking as well as communicate effectively. Given the challenges faced by teachers it becomes difficult to accomplish this (DBE, 2012:5).

When teaching learners of mixed abilities, it becomes strenuous for the teacher to ensure that all learners' needs are taken care of. Sometimes, teachers find themselves moving at the pace of fast learners thereby depriving learners with dyslexia adequate time to accomplish what is expected. Cortiella & Horowitz 2014 concurred with this view by pointing out that teachers find themselves with many demands. Among these is the pressure to meet secondary school standards. Mostly,

teachers do not feel that they have time or adequate skills to accommodate learners with learning difficulties such as dyslexia. This might cause anxiety and separation disorder in the learners (Anderson & Meie-Hedde, 2017).

2.3.5.12 Teachers' ignorance about teenage hood

Jensen & Nutt (2015) noted that during the teenage years, specific talents and strengths emerge. If a teacher is not well-versed about what constitutes teenage hood, they will face challenges in teaching and supporting learners with dyslexia. Senior Phase learners are at a stage where they search for self-identity, have an undefined status, and develop increased decision-making skills. Amid all the challenges the teacher faces when dealing with learners with dyslexia, they further find themselves having to understand the developmental stages of the learners that they teach and support. Apart from adolescence being an emotional challenge, learning disabilities such as dyslexia tend to exacerbate these issues (Anderson & Meier-Hedde, 2017; Bryan 2005).

2.3.5.13 Teachers' comments about learners with dyslexia.

Sometimes teachers make comments about the learner's performance. Some might sound judgemental. If the teacher calls a dyslexic a dull or lazy learner, their relationship can be strained, resulting in their poor interaction. This can make it difficult for the teacher to teach and support the learner (Mackay, 2004). Learners might retaliate by having a negative attitude towards the teacher, thereby making it difficult for them to teach and support the learner. Failure by teachers to render adequate support to the deserving learners is likely to affect their self-esteem making it difficult for the teachers to motivate them**. Viewing dyslexia as a disorder might shift the teacher's focus (O'Brien, 2018), causing them to view dyslexics as an abnormal group that should be dealt with abnormally.

2.3.5.14 Class sizes

The size of the class also determines the quality of support and teaching that will take place during learning. If the class is too big and of mixed ability, it will call upon the teacher to balance their teaching to meet every learner's needs. The teacher is expected to tailor-make the lessons to meet the different learner needs. They may lack the skill of preparing appropriate lesson plans that will meet every learner's

needs. If a class is big, it is difficult to have one-on-one sessions. Alawadh (2016) also noted that teachers preferred smaller classes as they had less stress and that they could give attention to the learners especially those with learning difficulties. Alawadh (2016) alluded to this by highlighting that class size contributes a lot to the learning process. Small classes are viewed as permitting better quality teaching as dyslexics need one-on-one teaching or working in small groups.

With all the other roles that teachers do besides teaching and supporting learners with learning difficulties, a shortage of time is another factor. Larger classes are a challenge in that they are viewed as impinging on the time that could be spent on individual learners. It is a challenge to encourage positive behaviour and attitudes when teaching and supporting large classes because of high workload, worse still, if there are learners with dyslexia or other learning difficulties.

2.3.5.15 Parental attitudes

Parents need to be educated not to over-expect from their children who have learning disabilities by strengthening their social support systems. They are important role players in their children's learning. Poor communication between the parents and the teachers can negatively affect the intervention process. Sometimes parents imagine perfect children of fantasy, while the teachers see real children with learning difficulties. This can bring about communication and trust problem between parents and teachers. According to Singer & Powers (1993 cited in Narasimba, 2012) parental attitude contributes to poor performance in their children with learning challenges, this includes insufficient family support system, parental negative attitude

Sometimes a teacher might want to call or send a message to a parent, for example, giving them instructions about their child's homework. If the parent is not pleased with the way the intervention is done, there is a possibility of a misunderstanding between the two parties. Sometimes the teacher might want to understand certain things about the learner's behaviour that they think might be having a negative influence on the learning process. If communication is poor the teacher might fail to get help from the parents. Anderson et al. (2017) highlighted that parents and mentors play an important role in emotional adjustments related to adolescents with learning disabilities. In some instances, learners present with emotional issues that include mood swings. This becomes a challenge to the teachers if their

communication with parents is poor, as they will be expected to deliberate on issues about a learner.

Some parents may have certain career expectations for their children and expect the teachers to work towards achieving them. They might fail to accept that their children have a learning difficulty. Such denial is likely to cause a communication breakdown between the teachers and the parents. Even though the teacher might be willing to discuss the learners' progress with the parents, getting to them might be a challenge. Alawadh (2016) echoed similar sentiments about the attitudes of parents who present strange behaviours when their expectations about their children are not met. Parents are noted to become angry at teachers when they delay in finding out the children's reading problems.

Teachers may find themselves faced with a challenge in dealing with the parents if they do not identify and support learners with learning difficulties on time. Al-Zyoud (2011) noted that parents see it as an advantage for the teachers to determine the learners' problems at an early stage to allow for early intervention. If the learners' problems go unnoticed and unattended, misunderstandings between learners' parents and teachers are likely to occur. Failure to involve parents from an early stage can negatively impact the learners' performance as well as the relationship between them and the parents, as they are also expected to assist learners in doing homework and other assignments (Peterson & Pennington, 2015). Learning difficulties need to be dealt with without delay. Spaull & Kotzé (2015) called these learning deficits 'insurmountable' meaning that the learning difficulties might be difficult to overcome if they have been left unattended for a long time.

The other challenge that teachers are faced with is of dealing with parents of learners with dyslexia because of social stigma, societal pressures and humiliation. The teachers are faced with the task of making parents accept and understand that their children have a disability. They should further try and make them understand that they are not stigmatising them through interventions and positive discussions they can engage in with the parents concerning their children. Early parental involvement of parents in the intervention of learners with dyslexia builds trust between parents and teachers (Jeynes, 2018). This is also alluded to by Alawadh

(2016) who viewed parental involvement as a vital element in effective developmental intervention.

2.3.6 Teachers' Knowledge about Dyslexia

It is not only the specialists who should have a sound understanding of what constitutes dyslexia. Teachers must be aware of what dyslexia is as this can help them to teach and support learners with such a learning disability. There is no reason for the teachers to make assumptions about what learning difficulties learners could be presented with. Little or no progress at school would be interpreted as laziness or stupidity on the part of the learner with nothing said about the teachers' understanding of the disability. How possible is it that a teacher who is unknowledgeable about a learning difficulty such as dyslexia be expected to teach and support individuals with learning difficulties? It can be difficult for the teachers to teach dyslexic learners if they have no idea about a particular condition and feel that they are not ready to support learners with such problems.

Reid (2020) viewed the term dyslexia as being surrounded by confusion and ambiguity. Teachers might find it challenging to understand, thereby making it difficult for them to support learners with dyslexia. Having little or no knowledge about dyslexia can make people think that a learner is not performing well simply because they are lazy or stupid, yet the actual problem could be dyslexia.

Reid (2020) pointed out that teachers are expected to motivate learners to learn. They should investigate the problems they might be having and then embrace learning as well as instilling confidence in them to ensure that they prepare them for life beyond school. This shows the need for teachers to be better equipped with the knowledge and skills to deal with this condition. Their ignorance and misconceptions about dyslexia can negatively affect the learners' performance.

Leon (2005) provided an example of Jamie Oliver (the famous chef) who noted that teachers tended to concentrate more on identifying the symptoms of dyslexia and neglecting the strengths shared by people with dyslexia. He described his school in the UK to show how dyslexics can sometimes be misunderstood. Oliver said, "It was with great regret that I didn't do better at school. People just thought I was thick. It was a struggle. I never really understood dyslexia and who could bring out my

strengths." It was a struggle because no one understood that he had dyslexia and could not help bringing out his strengths.

Reid (2020) was of the view that dyslexia, especially the understanding of the appropriate interventions, support and accommodations, should be understood by all teachers. The researcher foresees challenges that are likely to come about in teaching and supporting learners with dyslexia as dyslexia-related problems cut across all subjects especially if teachers have no understanding of the problem.

Studies have shown that despite the language struggles that the learners with dyslexia might be presenting with, they may have artistic, creative, and spatial abilities that they activate with their right brain (Ott, 2007). The researcher understands the frustration that a teacher who is clueless about what constitutes dyslexia can experience. They are likely to assume that a learner is lazy or stupid, yet the actual learning difficulty is dyslexia. The teacher needs to understand that dyslexia does not affect intelligence. Leonardo da Vinci is one example of a genius who had dyslexia. Despite the disability, he was able to combine amazing artistic ability with extraordinary scientific thinking. He showed interest in painting, drawing, sculpting, science, engineering, and anatomy to mention just a few (Miller, 2015).

From the researcher's point of view, teachers need to be knowledgeable about dyslexia and other learning difficulties. This will prevent them from making false generalisations about the learning difficulties that learners might be having. Generally, dyslexia is viewed as a combination of neurological, psychological and genetic factors (Reid, 2013). Children with dyslexia can be identified through screening tests although no absolute analysis has ever been offered (Reid, 2013).

Confusion and ambiguity that surround dyslexia can cause anxiety for the teachers as well as parents. This could come about due to the different profiles and challenges of each learner. Reid (2013) stated that dyslexia falls within a group of specific learning difficulties. This calls for the teachers' awareness of what to check to determine if a learner has dyslexia or not. The teachers' ignorance about dyslexia may make them view the learner as stupid while the learner may be telling themselves that the teacher does not understand what they are going through.

2.4 CHAPTER SUMMARY

From the discussions above, teachers can find it difficult to teach and support learners with learning difficulties such as dyslexia. It calls for a collaborative effort to see to the success of the implementation of the ideas laid down in, the document; the EWP6 (DoE, 2001). Its purpose is to ensure that every learner is given an equal opportunity to learn despite the learning difficulties or disabilities they might be having. With all the measures put in place, the number of challenges that teachers experience when dealing with learners with dyslexia can be reduced.

In this chapter, two theoretical models that were be used for this study were identified and described. These are the bioecological model as well as the social constructivism. The reasons for choosing them for this study were spelt out. A literature review was provided. It included the definition of dyslexia, its causes and management. The need for the teachers to be knowledgeable about dyslexia was highlighted. Possible challenges that are faced by teachers when teaching and supporting learners with dyslexia were identified and discussed. The next chapter presents the research design and methodology that was used in conducting the study.

CHAPTER 3: RESEARCH DESIGN AND METHODOLOGY

3.1 INTRODUCTION

In the previous chapter, the literature review and the two theoretical models that were used for this study were identified and discussed. These are the bio- ecological model whose proponent is Bronfenbrenner (1979) as well as the social constructivism of Vygotsky (1968). The reasons for choosing them for this study were spelt out. A detailed literature review was provided. It included the definition of dyslexia, its causes and management. The need for the teachers to be knowledgeable about dyslexia was highlighted. Possible challenges that are faced by teachers when teaching and supporting learners with dyslexia were identified and discussed.

This chapter is about the research design, the research methodology as well as the research process which the researcher followed in the actual study. The qualitative research design approach was used for this study, and the strategies used included the phenomenological research methodology collecting data using quester views and telephonic interviews.

The research design that was used for this study aimed at determining the challenges that are faced by the teachers of dyslexic learners in the Senior Phase. The population and sampling strategies were identified. An outline of the data collection techniques and analysis of the qualitative data were provided. The trustworthiness and ethical considerations were established and adhered to.

Figure 3.1 shows the steps that were followed in carrying out the study.

Stage	Explanation	Appendix
1. PREPARATORY STAGE	Received a letter from UNISA and DBE to proceed with the research literature review.	A and B
⇩		
2. ENTRY INTO THE RESEARCH SITE STAGE	The researcher called the principals of the three schools used for the research. The researcher discussed the purpose of the research and obtained permission to proceed with the study after the principals signed the letters giving their permission.	C

⇩		
3. INTRODUCTION TO PARTICIPANTS PHASE	The principals of the three schools gave permission to conduct the research. Informed consent form was signed. Data collection started through responding to written interview as well telephonic interview questions.	D
⇩		
4. INITIAL RESEARCH STAGE	Interpretation of all the data collected according to the objectives of the research.	E
⇩		
5. ANALYSIS STAGE	Analysed information from Google Forms and telephonic interviews.	F
⇩		
6. INTERPRETATION OF DATA STAGE	Interpretation of all the data collected according to the objectives of the research.	
⇩		
7. SUMMARY AND INTEGRATION OF FINDINGS	Construction of a summary, findings integration, and made conclusions and recommendations.	

Figure 3.1: Diagrammatic representation of the research phases

3.2 SCOPE OF THE EMPIRICAL RESEARCH

The social constructivist theory of Vygotsky (1968) and Bronfenbrenner (1979) bioecological model are the theoretical frameworks that were used for this study. A detailed plan of how the study was done to investigate the topic was given. The researcher sought to investigate the challenges that the Senior Phase teachers faced when teaching dyslexics to devise ways of addressing the issues so that the teachers can be supported to effectively teach and support learners with dyslexia.

This research centered on the teachers' knowledge about dyslexia, how an individual suspected to have dyslexia can be assessed, intervention strategies that can be used to assist a dyslexic learner and the challenges that the teachers face when dealing with learners with such a learning difficulty.

3.3 RESEARCH DESIGN AND METHODOLOGY

According to Jonson, Adkins & Chauvin (2020), the research design is the plan that a researcher uses to obtain answers to the questions under study. Blumberg (2014) alluded to this definition by stating that a research design is a blueprint that entails the frame and plan of a research, which includes the methods and procedures,

collection of data, measurement and data analysis. The qualitative research design was chosen for this study, and it was mostly used during data collection.

3.3.1 Justification for Choosing a Qualitative Research Approach

As a qualitative researcher, my interest was to gain understanding and significance of how people make sense of their world and their experiences within their worlds. The qualitative paradigm allows for the retrieval of rich information which provides insight into the phenomenon in question and is key to understanding the multiple interpretations of reality. The data in qualitative research is dependent on human experience which is compelling and powerful (Cohen, Manion & Morrison, 2007).

The researcher needed to establish the meaning of the participants' experiences and knowledge about dyslexia and the challenges faced by teachers of dyslexic learners and how they can be addressed. To understand a phenomenon, the researcher should consider the elements of qualitative research design that is characterized by the attempt to understand the meanings of participants, the researcher as the primary instrument of data gathering and analysis, and the inductive process of a richly descriptive report (Merriam, 2009).

Qualitative research seeks to establish a profound understanding of how people make sense of their lives. McMillan & Schumacher (2010) pointed out that qualitative research begins with assumptions, the use of a theoretical lens and the study of research problems. This method enables a researcher to understand the situation in its exclusivity as part of a particular context and the interactions that exist. McMillan & Schumacher (2010) stated that the qualitative researcher makes use of an emergent design and continually makes decisions about data collection tactics during the research. The researcher was able to direct the research in the way that enabled the participants to express their understanding and experiences about the phenomenon.

The social constructivist theory allows people to construct meaning through collaboration with each other. In addition, the bioecological theory helps in understanding the four systems in which an individual develops and their influences on a person. A researcher can understand the multiple interpretations of reality through the individual socializations and interactions with others (Merriam, 2009).

The study was characterized by the contextual, descriptive and explorative approach. The data analysis was done through extracting general themes from the evidence. For this study a phenomenological research design was used.

For its empirical investigation, the study used the qualitative paradigm to extract rich information which gives insight into the phenomenon being investigated. The researcher combined different elements of qualitative research approaches for the broad objective of breadth and depth of understanding and collaboration (McMillan & Schumacher, 2010).

The qualitative research perspective points out the idea that meaning is socially constructed by individuals as they interact with one another and that meaning is attached to our life and all its events. According to Merriam (2009), there are many meanings and clarifications of reality that change over time. From what has been discussed, qualitative researchers are focused on extracting meaning from people as individuals construct their own meanings. In this study, the researcher was the primary instrument of data collection and analysis confirming Merriam's (2009) characteristics of qualitative research. The key characteristics that this study considered are context sensitivity, rich narrative description, process-oriented data analysis and participants' perspectives.

3.3.2 Research Sites

The study was conducted at three public high schools in Ekurhuleni municipality in Gauteng Province: one school in Ekurhuleni North and two in Ekurhuleni South. The researcher collaborated with the principals of the three schools that were used for the study.

3.3.3 Gaining Access into the Research Sites

To enter a research site, McMillan and Schumacher (2010) pointed out that establishment of good relations with all individuals at the site is key. The researcher had a face-to-face meeting with one principal. The other two were communicated with telephonically as they seemed to be busy most of the time and were not comfortable with the researchers' visit to the school because of Covid-19 regulations. One of them said that at her school there were two learners that were suspected to be dyslexic, but the district had tested them, and they did not have the disability.

The other principal was not keen to give the researcher the contact numbers of the teachers. The researcher only received the principal's cellphone number and was asked to send the research information via WhatsApp. Later, she said that the teachers were not going to participate in the study as they were busy with schoolwork. She further stated that Covid 19 rules restricted people from visiting schools. Even though the researcher tried to explain to her that online written as well as telephonic interviews would be used, she was not keen to allow for the study to be conducted at her school.

3.3.4 The Research Environment

The research was conducted, in three high schools in Ekurhuleni District that is Ekurhuleni South and Ekurhuleni North. One school was a technical high school, the others were academic. The school principals were supportive of the researcher though at first, one of the principals thought that the researcher might need a special school to conduct her study, realizing that it had something to do with dyslexia. The schools accommodated Grades 8 to 12.

3.3.5 Population

Population is viewed by Zikmund et al. (2013) as a pool from where a researcher chooses a sample, which is representative of the larger group The researcher, understands population to mean a big group of people, from where a smaller number of people is selected for a study.

The population for this study consisted of teachers from 221 public secondary schools in Ekurhuleni District who were teaching Grade 8 and 9. They included various race groups (black African, white, coloured and Indian) and both men and women.

3.3.6 Sampling

Hatch (2002) defined a sample as that part of a population that is studied to gain information about the whole. Sampling involves the selection of a small number of elements from a larger group that a researcher intends to use for a study; the information gathered from the study can be generalised over a large group (Hasana,

2011). Sampling is helpful in that it reduces the research costs, saves time and involves participants who are willing to take part in a study.

The participants for this study were selected using the convenience and the purposive sampling methods. The convenience sampling method is noted to be extremely speedy, easy, cost-effective and a less time-consuming method (Creswell, 2014). The researcher used the convenience sampling method as it promoted the use of participants who were easily accessible. As suggested by Silverman (2013), this sampling method allows a researcher to draw data by selecting people because of their ease of access.

The purposive sampling method involves the intentional seeking out of research participants who will be able to yield information-rich data on a topic. This was intentional as the participants were regarded as people who have knowledge of the central problem under study (Creswell, 2012). According to Welman and Kruger (2001), the power of purposive sampling is its focus on natural, ordinary events and natural settings, helping to create a strong idea of what "real life is" for participants in a qualitative study.

The sample for this study was drawn from three public secondary schools in Ekurhuleni South and North district in Gauteng. Teachers who taught Grades 8 and 9 were selected for this study. Ten were selected from each school, and each of them taught a different subject including academic subjects, technical subjects and those who taught both academic and technical subjects. This included English Language, Mathematics, Natural Science, Life Orientation, Drama, History, Geography, Visual Arts, Physical Education and Information Technology teachers. All genders were included. The sampled participants were viewed as "information-rich" resources. This information was ascertained from quester views entered onto the Google Form (Annexure D). Teachers with a range of years' teaching experience and training were used as participants for this study.

3.3.7 Data Collection Techniques

According to Mtsweni (2008), data is defined as information gathered by the researcher about the problem they are investigating. Heap and Waters (2019) referred to data collected directly from the participants as primary data.

In this study, the researcher was detached from the study to avoid bias; instead, the participants responded to a quester view that was shared using a Google Form that was accessed using a link that the researcher sent to the principals of the schools via email. "Quester views are homogeneous self-completion questionnaires, characterised by follow-up interviews to gain a better understanding of the responses" (Adamson, Gooberman-Hill, Woolhead & Donovan, 2004 as cited in Makozho & Ncube, 2020: 27).

A Google form (Appendix B) was used to create questions that the participants responded to in their own time. Blumberg et al. (2014) pointed out the need to allow interviewees flexibility to answer questions at their own convenient time. Anonymity was ensured and the participants had a choice to consent to be part of the study. There were no direct emails to the participants involved and no sections on the Google Form required them to indicate their identity. A link with the research information, consent forms as well as the Google Form were sent via email to the school principals by the researcher. They were asked to share the link with the Grade 8 and 9 teachers who were willing to take part in the study.

The participants were, however, required to supply their qualifications and educational background, gender as well as the number of years in teaching. The information on the quester view covered demographics, the participants' understanding of dyslexia, assessment methods to check if a learner has dyslexia, intervention strategies and, most importantly, the challenges that they faced when dealing with dyslexic learners in the Senior Phase.

After two weeks the researcher started receiving responses to the quester view on the Google form. The results were analysed and interpreted followed by recommendations to the relevant departments. Zikmund et al. (2013) concurred with this by pointing out that after all the data has been gathered it is interpreted and recommendations are given.

3.3.7.2 Telephonic interviews

In addition, the researcher interviewed some of the participants telephonically when they called her for clarity on some of the research questions. A small number of the

participants responded to telephonic interviews about the phenomena under investigation. Participants were not keen to share their personal cellphone numbers; the researcher's contact numbers were indicated of the research documents making it easier for the participants to contact the researcher when the need arose. During telephonic interviews, structured questions like those on the quester view were used, and the participants spoke freely on the phenomenon investigated. The researcher probed where necessary. Cohen et al. (2011) pointed out that each participant in an interview would define the situation in their own unique way.

3.3.7.3 Secondary sources

Furthermore, the researcher collected secondary data that is viewed by Tashakkori & Teddlie (2003) as data that already exists. Some of it was collected through the internet and other resources. The data was useful in giving an understanding and a background knowledge to the research question.

3.4 TRUSTWORTHINESS IN DATA COLLECTION

Rigour is essential in research to ensure that the research is valuable, truthful and maintains its utility. According to Lincoln & Guba (1985), rigour gives a study credibility. Transferability, credibility, dependability and conformability were used as criteria in evaluating the trustworthiness of this study.

3.4.1 Credibility

Lincoln & Guba (1985) view the extent to which the study is an actual presentation of the participants who have participated in the study as being credible.

- This study will also describe the participants and the themes in Chapter 4 of the study in detail.
- The data was analyzed according to patterns that were reviewed by the participants involved.
- Communication about the participants and researcher was done through each school's principal, telephonically and via email.
- Coding was done by the researcher.

3.4.2 Transferability

Transferability in a study can be achieved by providing enough contextual information about the research sites so that the reader can make a connection between what is found in one study and what could be found in another similar situation (Shenton, 2004). This study refers to the number of participants involved in the study, the number of institutions consulted where the study took place and the data collection method.

3.4.3 Dependability

Dependability focuses on the process of the inquiry. Lincoln & Guba (1985, cited in Schwandt, Lincoln & Guba, & 2007:299) stated that the researcher has a responsibility to ensure that the process of research is documented, makes sense and is traceable. This study is traceable to whomever should require the information. The process of this study is documented in this chapter. To ensure data validity, collection and analysis, the researcher used the following strategies.

3.4.4 Monomethod Strategy

For this qualitative research study, data was collected through the different instruments, namely, individual written questionnaires and telephonic interviews and the literature study. The interpretation of the phenomena in question entails the use and collection of a variety of empirical materials (Aspers & Corte, 2019).

Participants were asked informally to verify accuracy during data collection. The researcher used probing questions during the telephonic interviews.

3.4.5 Confirmability

According to Trochim (2006), confirmability is the degree to which results can be confirmed or authenticated by others and this can be achieved by continuously checking the data's consistency throughout the study. The researcher ensured confirmability by conducting member checks during and after interviews.

3.5 ETHICAL CONSIDERATIONS

The researcher complied with the specifications of all ethical principles. Ethical clearance for the study was obtained from the Ethics Committee of UNISA (Appendix

A). To ensure that a measure of trustworthiness was observed the researcher, applied for permission from the Gauteng DoE (Appendix B). Permission was also sought from the principals of the three schools (Appendix C). Participants were asked to give written permission where they acknowledged participation, and which confirmed anonymity, confidentiality, and informed consent (Mtsweni, 2008). Appendix D is the informed consent form that was used to get the agreement from participants.

The participants were made aware that participating in the study was voluntary and that they reserved the right to withdraw from the study at any time. They were also assured that there was no harm in participating in the study, as it would not result in any physical or mental injury, and no one could identify any of their responses. Trustworthiness must be always considered (Mtsweni, 2008).

3.6 CHAPTER SUMMARY

This chapter shows that data was gathered from all the relevant stakeholders to have a clear view of the phenomena under research. The study was conducted at three high schools by means of written and telephonic interviews.

The qualitative research design whose, services were employed in this study was explained in this chapter. The chapter clearly spells out the processes followed, that warranted validity and trustworthiness of the study. There was also an outline of the ethical considerations.

CHAPTER 4: DATA ANALYSIS AND INTERPRETATION

4.1 INTRODUCTION

In the previous Chapter 3, the researcher discussed the scope of the empirical research. Justification for choosing a qualitative research approach was also provided. A detailed research design and methodology with respect to research sites and gaining access to them and research environment were also the focus of the chapter. In addition, the researcher described the sampling and data collection techniques. The trustworthiness of the data specifically in reference to credibility, transferability, dependability, and confirmability were dealt. The ethical considerations were also explained in detail.

In this Chapter 4, the researcher focuses on the analysis and interpretation of the data that was collected. From the researcher's point of view, data analysis is a process of understanding and interpreting the content of data collected during a study, to arrive at research findings. Mtsweni (2008) stated that data is merely evidence that is used in the analysis process of the investigation and that data analysis is dependent on data collection.

 Interpretation in research means the way in which someone explains or understands an event, information and someone's actions. Data in this chapter was interpreted according to the researcher's understanding. According to Mtsweni (2008), data is defined as information gathered by the researcher about the problem they are investigating. The responses to the quester view provided the views about the phenomenon being studied. as well as a better perspective about understanding of the participants being studied.

The results were analysed and interpreted followed by recommendations to the relevant departments. Zikmund et al. (2013) concurred with this by pointing out that after all the data has been gathered it is interpreted and recommendations are given

The data for this study was interpreted using the mixed methods research that constituted both the qualitative and the quantitative methods. Graphs, pie charts, statistics as well as descriptive narratives were used for a better understanding of

the findings. As the research report was being compiled, elements of both the qualitative and the quantitative methods were brought together resulting in the use of a mixed method research design to interpret the findings. Blumberg (2014) pointed out that mixed methods research designs are explanatory, parallel and nested and they include the use of both the quantitative and qualitative research questions.

According to Creswell (2014), the mixed research methods allow the researcher to describe the lived experiences of the individuals about a situation as described by the participants resulting in a profoundly detailed study. The goal was to produce an intensive and authentic account of the experiences of individuals. Knowledge was constructed and was not passively received. Pre-existing hypotheses do not bind it; instead, mixed method research allows for flexibility in the research procedures.

The study was an exploratory study. The aim was to determine the challenges that are faced by Senior Phase teachers when dealing with learners with dyslexia. Most of the data was collected using the qualitative method. The researcher was able to obtain the participants' opinions thereby describing their individual lived experiences from their point of view because of their high degree of representativeness, making it easier for the researcher (Creswell, 2014).

Summaries of the analysis were made through observing and describing patterns from collected data. Creswell (2013) noted that mixed methods research can be analysed using numeric data for describing the results, comparing groups and relating variables text images can be used for coding, for relating and development of themes though getting to the result might take time, call for finances and demand certain skills to carry out. Furthermore, research data can be collected through structured as well as semi-structured interviews, observational checklists, field observations that can be analysed through descriptive and inferential statistical steps that include coding, development of themes and categorising.

4.2 DATA ANALYSIS

The following is the data presentation showing the data that was collected from the 30 respondents that were used for this study. The researcher understands data presentation to be the process of using various graphical formats to visually represent the relationship between two or more data sets so that data is easily

analyzed and understood. For this study, tables, pie charts and bar charts were used to present data.

The statement below was used as consent for the respondents so that they indicate whether they entered the study voluntarily or not: "I have been informed about the objective of the study and that participation is voluntary, confidential, and anonymous". All participants consented to participate as shown in Figure 4.1.

Figure 4.1: Agreement to participate

4.2.1 Biographical Details

In the first part of the online interview schedule, the researcher gathered the participants' biographical information. In this section, a descriptive analysis of the participants is presented in frequencies and percentages.

Table 4.1: Gender representation

Gender	Frequencies	Percentages
Females	19	63
Males	11	37
Total	30	100

Figure 4.2: Gender

Table 4.1 and Figure 4.2 indicate that most of the participants (63%) were women, whereas 37% of the participants were men. There were no participants (0%) who preferred not to indicate their gender.

4.2.1.1 Interpretation

The data collected for this question on the genders of the participants, is also supported by the notion that in Gauteng public schools, there are more female educators than male educators (Gauteng DoE 2019- 2020).

Table 4.2: The grade(s) that participants taught

Grade taught	Frequencies	Percentages	
Grade 8	8	27	
Grade 9	7	23	
Grade 8 and Grade 9	15	50	
Total	30	100	
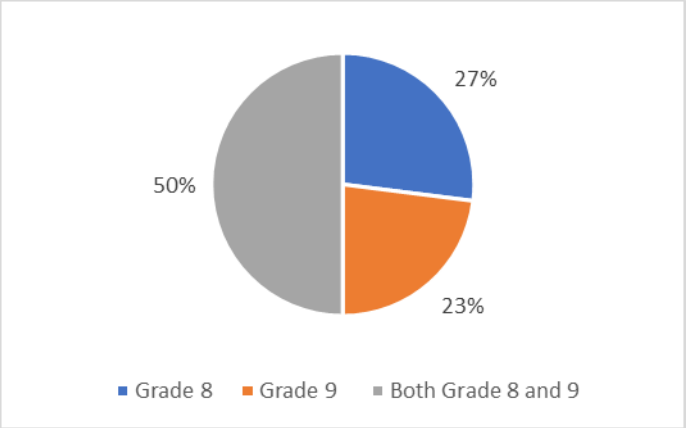
Figure 4.3: Grades taught

Table 4.2 and Figure 4.3 indicate that 27% of the participants taught Grade 8. The percentage that taught Grade 9 was 23% and 50% of the participants taught both Grade 8 and 9. More Grade 8 teachers took part in the study than Grade 9 teachers.

4.2.1.2 Interpretation

The researcher was able to have both Grade 8 and 9 teachers taking part in the study as per plan. This gave the scholar an opportunity to find out if the problems, that the learners had when they left the primary school, were addressed in Grade 8 or the learners were promoted to Grade 9 still with the learning challenges.

Table 4.3: Participants' years of teaching experience.

Duration	Frequencies	Percentage	
Less than 1 year	2	7	
1 year	4	13	
2 to 5 years	7	23	
5 to 10 years	17	57	
Total	30	100	Figure 4.4: Years of teaching experience

Table 4.3 and Figure 4.4 indicate that the majority (57%) of the participants had 5 to 10 years' teaching experience and a small percentage of 7% had less than a year's teaching experience; 23% of the participants had 2 to 5 years' teaching experience and 13% had 1 year's teaching experience.

4.2.1.3 Interpretation

All the participants used for this study had some teaching experience ranging between 1 and 10 years. Having a longer period of teaching experience without proper skills to address the learners' needs is not beneficial to the learners. An individual with a year's teaching experience coupled with inclusive education training can go a long way in addressing learning challenges.

Table 4.4: Participants' highest academic qualifications

Educational qualification	Frequencies	Percentages	
Teaching Certificate	2	7	
Teaching Diploma	4	13	
Teaching Degree	17	57	
Honours Degree	5	17	
Master's Degree	2	6	
Total	30	100	
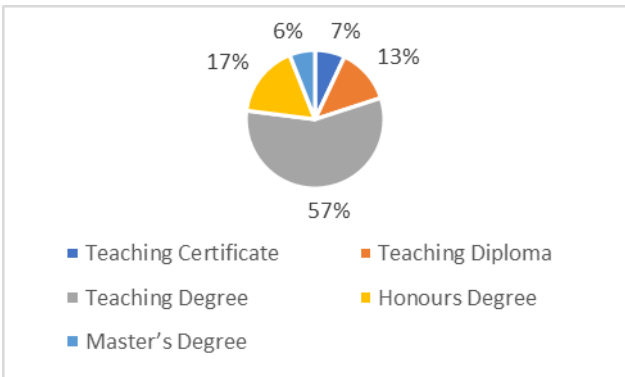
Figure 4.5: Highest academic qualifications

From Table 4.4 and Figure 4.5, it can be noted that 57% of the participants had a Bachelor's teaching degree; 17% held an honors degree in teaching and 13% had a teaching diploma, 6% had master's degrees and 7% had a teaching certificate.

4.2.1.4 Interpretation

All the participants that were used for this study had some teacher training, although it differed in qualification types.

Table 4.5: Subjects that the participants taught

Subject(s)	Frequencies	Percentages
Academic Subjects	25	83
Technical Subjects	1	4
Both Academic and Technical Subjects	4	13
Total	30	100
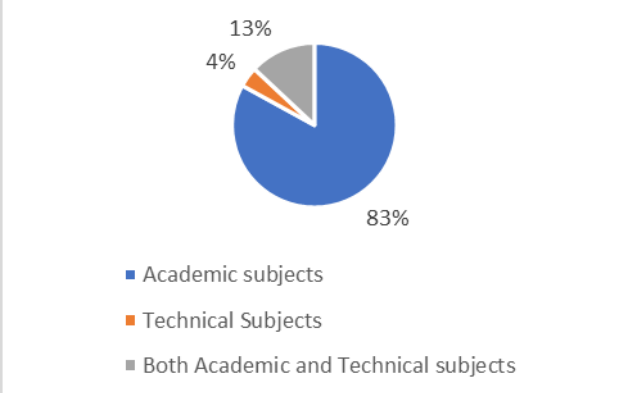
Figure 4.6: Subject streams taught

Table 4.5 and Figure 4.6 indicate that the majority (83%) of the participants taught academic subjects, whereas 4% taught technical subjects and 13% taught both Academic and Technical subjects.

4.2.1.5 Interpretation

The researcher found that teachers taught academic subjects, technical subjects and both academic and technical subjects. Using such teachers showed that not only teachers who teach academic subjects experience challenges in teaching and supporting learners with dyslexia. This calls for the schools' responsible authorities to include all teachers in staff development workshops are intended to equip teachers with skills to deal with learners with special educational needs.

Table 4.6: Type of training done by participants

Teacher training done	Frequencies	Percentages	
I received special education training	10	33	
I did not receive special education training	20	67	Figure 4.7: Teacher training on special education
Total	30	100	
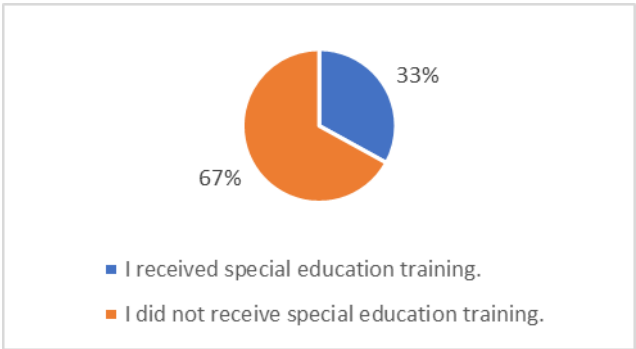
Table 4.6 and Figure 4.7 show that only 33% of the participants received training on special education whereas the majority (67%) of the participants did not receive any training on special education.

4.2.1.6 Interpretation

Data gathered on the type of training done by the participants was useful in that it informed the researcher whether the teachers in the study had done training on special education or not. This helped the researcher to determine whether training

on special education helps in teaching and supporting learners with learning challenges such as dyslexia. In addition, the researcher was able to determine how many teachers received such training, and then map the way forward in helping those without training on special education.

If some of the teachers use special education skills to address learning needs in one grade or subject and then learners move to another teacher who is not skilled in addressing a problem like dyslexia, the learners are likely to suffer. This calls for special education training or even an incorporation of basic knowledge on inclusive education during teacher training for all teachers.

4.2.2 Participants' Perceptions on the Challenges Faced by Senior Phase Educators When Teaching Learners with Dyslexia

The data obtained from the participants through the online interview schedule was analyzed, coded, categorised and presented as themes with sub-themes. In order to avoid the misrepresentation of the participants' responses, data is presented verbatim in italics to indicate quotations.

Table 4.7: Presentation of the themes and sub-themes

Question	Main Theme(s)	Subtheme(s)
Question 7	The teacher's understanding of dyslexia	• Difficulty in reading and comprehending a text • Difficulty with spelling and writing • Inability to take instructions and sort numbers
Question 8	The indications that can tell a teacher if a learner has dyslexia	• Learner's poor development of vocabulary • Learner's poor reading skills • Learner's failure to understand what it is written • Poor organisational skills
Question 9	Assessments to detect dyslexia	• Baseline diagnostic assessment tools • Engagement of the specialist to test dyslexia • Providing learners with reading text and comprehension work then assess

Question	Main Theme(s)	Subtheme(s)
		their responses • Referring learners to management for testing
Question 10	Intervention strategies in dealing with learners with dyslexia	• Provide individual assistance to learners as per their needs • Make an application to the DoE for learner concessions • Involvement of parents in supporting their learners • Organize equipment for learners with problems related to sight and hearing
Question 11	Challenges experienced when teaching learners who are dyslexic	• Lack of support from stakeholders • Managing the parents' expectations about their children • Inadequate resources and training to handle learners with special needs such as dyslexia • Learners' low self-esteem and lack confidence • Class sizes and the workload
Question 12	Challenges faced when applying strategies to support dyslexics	• Lack of cooperation from learners • Approval from the DBE for learner concession takes a long time • Lack of training on how to support learners with learning impairment • Lack of support by the schools, in dealing with learners with dyslexia

4.2.3 Teachers' Understanding of Dyslexia

The purpose of Question 7 was to establish the teachers' understanding of dyslexia. Figure 4.8 below provides a graphical description of the answers.
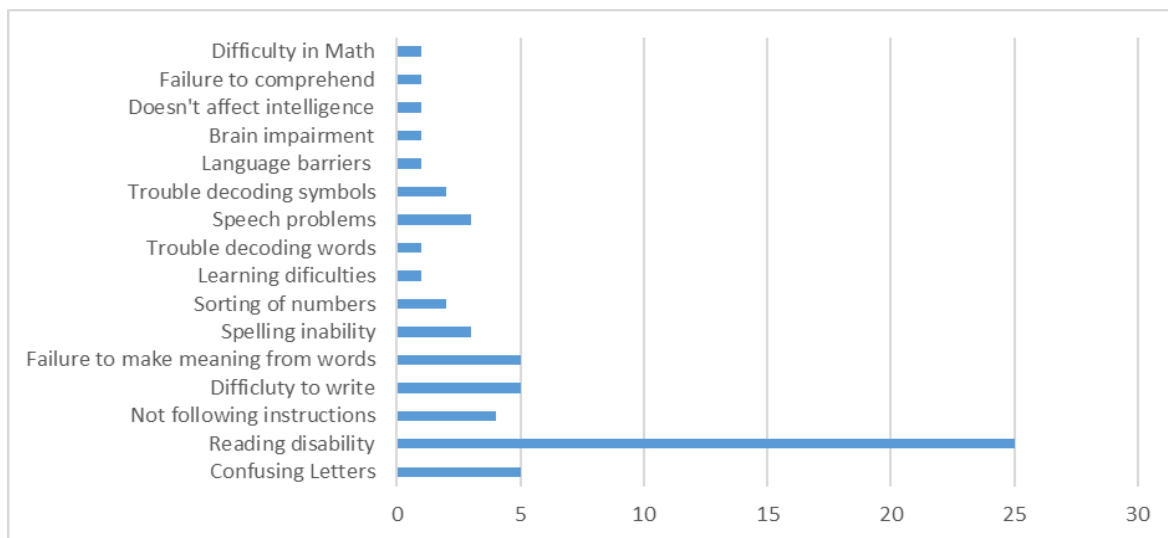
Figure 4.8: Understanding of dyslexia

The following sub-themes emerged.

4.2.3.1 Difficulty in reading and comprehending a text.

Learning cannot take place if an individual is unable to read. Reading with understanding is important as it allows a learner to follow given instructions in doing activities.

Several participants associated dyslexia with reading problems. Participant 1 mentioned that "*Dyslexia is a reading difficulty*." The same sentiments were mentioned by Participant 3, 6, 8, 9 with Participant 7 who added that dyslexia is a "*learning disorder that is characterized by reading difficulties.*" Adding to what other participants mentioned, Participant 10 mentioned that "Dyslexia *is a condition that causes a person to struggle with reading and writing."* The same participant went on to say, *"Dyslexics struggle to recognize some letters."* A similar view was expressed by Participant 16 who indicated that a learner with dyslexia, "*Confuses letters such as b and d."* In addition, Participant 13 agreed with the notion that "*Dyslexia is a learning disorder that affects one's ability to read*." Furthermore, the same participant mentioned that dyslexia, "*affects a person's ability to write, speak, the most common being mismatching of letters when reading and fails to take instructions*."

The sentiments of the participants pertaining to dyslexia as presenting with reading problems, were also highlighted by Reid (2013) who pointed out that dyslexics present with reading disabilities that include comprehension or speed of processing

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(reading fluency) but, if a learner cannot read because of a poor instruction that does not mean that the learner is dyslexic.

4.2.3.2 Interpretation

The above-mentioned reading problems indicate that learners have dyslexia. It would be better for the teacher to address the problems starting from basic reading. If it happens that learning problems are identified in a Mathematics, Science, or any other subject besides languages, it would be better if such learners are referred to language teachers as reading is among the four basic skills in languages. This can come with other challenges as the language teachers would have their own workload. It will mean doing more than one can afford. At the same time, the other teachers will still be expected to teach and assess the subjects they offer, despite the reading and comprehension challenges that the learners experience. If there are language support classes at the schools, then the learners can get assistance there.

While the EWP6 advocates for inclusion, there are chances that some of the teachers did not study inclusive education during their training and could find themselves failing to teach what they do not understand resulting in their ignoring some of the things they have to teach. Consequently, they would be faced with challenges as they must account for the learners' under-achievement.

4.2.3.3 Difficulty with spelling and writing

It is a challenge to teach a learner who is unable to spell words correctly. This problem is felt especially when marking, as it results in the marker failing to understand what the written work is all about.

From Participant 13's point of view*,* a learner with dyslexia has*, "difficulty in spelling words."* Wilson (2010) agreed with this view by indicating that, among others, the symptoms of dyslexia include inaccurate or slow recognition of printed words and poor spelling problems that in turn affect reading fluency, comprehension, and written expression.

Participant 14 brought another dimension that indicates that a learner with dyslexia, "*Cannot form a pattern or a picture from a word they are looking at it, neither can they decode or apply any phonetic skill*." Though Participant 17 agreed with others

who relate dyslexia to reading, the same participant further noted that dyslexia is a *"hereditary condition."* Leseyane et al. (2018) agreed with those who stated that dyslexia affects oral language skills. According to Participant 19, *"dyslexia is a disorder in the brain that results in an individual's failure to read and spell words correctly."*

4.2.3.4 Interpretation

Learners who are experiencing difficulties with spelling and writing could have confidence issues that could also lead to their decline in their school performance. These learners could also demonstrate a low self-esteem since they are not on par with their peers. Activities to boost confidence should be done with learners. Lack of confidence could be a result of failure to read or express themselves in front of the whole class, which was also highlighted in the 25 responses where participants were asked to define what they understood dyslexia to be.

Poor spelling and writing abilities could impact a learner beyond their school years; hence, this needs to be dealt with at an early stage. Providing individual assistance to learners as per their specific needs will address the learning problems, they have leading to reduced challenges that the teachers face when dealing with dyslexics.

4.2.3.5 Inability to take instructions and sort numbers

In every subject that is taught at school, the learners must follow instructions to complete a lesson; for example, it can be a science lesson where an experiment is done; or a drama lesson where they need to read and critique a play. If learners are unable to read and follow instructions, achieving the set objectives can be a challenge.

According to Participant 23, an individual with dyslexia, *"has a problem of following given instructions, as well as comprehension."* This was also stated by Participant 24 who said that *"Dyslexia is a condition whereby an individual struggles to make meaning from letters or words."*

Arithmetic involves calculations and sorting of numbers. If a learner has dyslexia, it might not be easy for the learner to sort out numbers and solve mathematical problems. This was stated by Participant 17 who mentioned that a learner with

dyslexia presents with *"challenges pertaining to arithmetic…"* Participant 23 agreed to that "*failure to calculate answers in a mathematical problem*", is another challenge that results from dyslexia. This was also alluded to by Olagboyega (2008) who viewed problems in numeracy as related to dyslexia.

According to Participant 22, "*Dyslexia is a condition that affects people of all ages, with regards to how they read, process and learn, it comes in varying degrees of intensity, and some people can function in society without being diagnosed."* Though Olagboyega (2008) identified a discrepancy between intelligence and ability to learn as some of the characteristics of dyslexia participant 27 viewed *dyslexia as "an impairment in the brain that does not affect intelligence.* Participant 30 pointed out that "*Dyslexia is limited ability to appropriately learn, difficulty in decoding words, speech and symbols*"

From the participants' responses, in one way or the other, dyslexia affect the learning process. This is also highlighted by the International Dyslexia Association (2002) that states that dyslexia concern the way people process information and how that affects their ability to learn.

4.2.3.6 Interpretation

In any learning situation, instructions need to be followed for successful learning. Sometimes learners are expected to conduct experiments which need learners to follow precise instructions. If a learner is unable to read or reads without understanding, to conduct the experiment will be difficult – and could be dangerous (Schibeci, Lake, Phillips, Lowe, Cummings & Miller, 2008). Sometimes learners fail to cope with what is going on in class because they have a visual, hearing or other problem. This could be the reason why Reid (2005) highlighted the need for neurological connections such as the integration of different skills such as visual motor, auditory kinesthetic and integration as in listening and carrying out instructions.

Teaching learners with a reading problem is a challenge. How does a learner carry out an experiment when they cannot read instructions? Reading challenges make the teaching and learning process difficult, as the teacher will be expected to start with basic reading before introducing new work.

Problems with writing also slow down the pace of learning. Some responses showed that a learner with dyslexia confuses letters. This confusion can cause a learner to read and write incorrectly, causing both the learner and the teacher to be frustrated as the learner fails to perform as expected.

4.2.4 Theme: The Indications that Can Tell a teacher if a Learner has Dyslexia

Question 8: The purpose of this question was to determine how participants can tell if a learner in their class has dyslexia. Figure 4.9 below provides a graphical description of the answers.
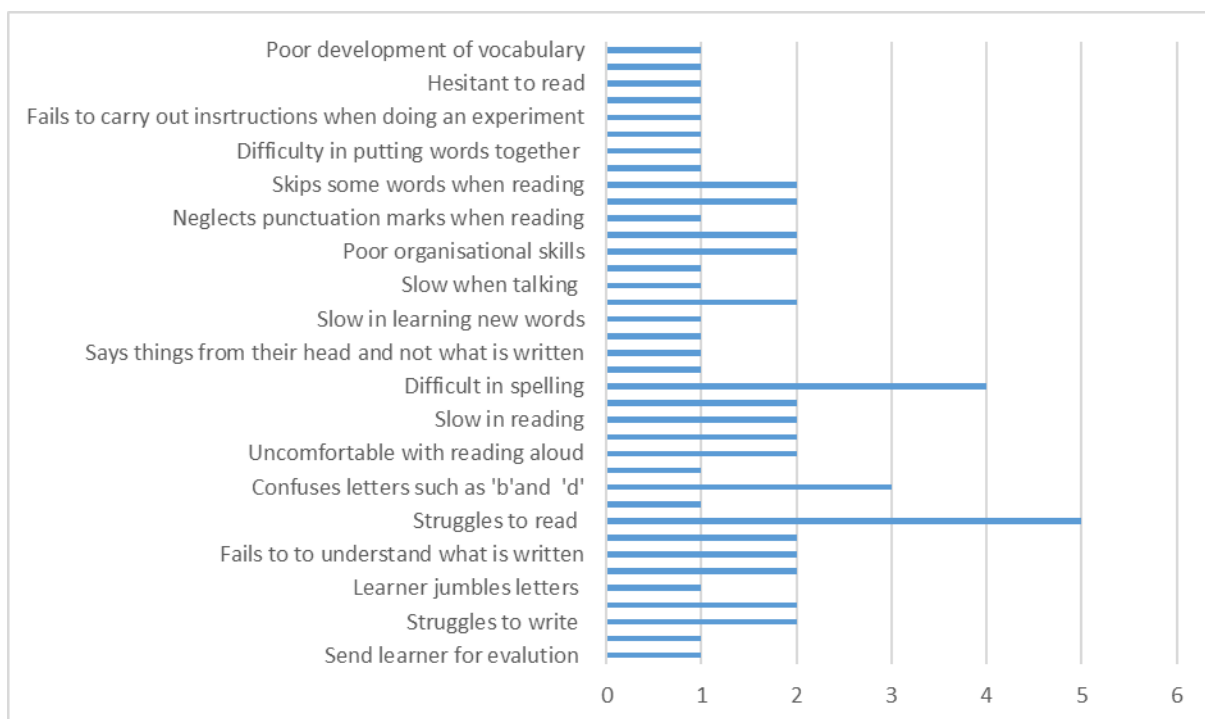
Figure 4.9: Indicators of dyslexia

The following sub-themes emerged from the data.

4.2.4.1 Learners' poor development of vocabulary

There is a lack of vocabulary development from learners. This deficit in vocabulary development has a major negative effect on learners' academic performance and was interpreted in different ways.

Participant 17 mentioned that "*an individual with dyslexia has severe difficulty to do sight reading word recognition) inadequate phonetic awareness, illegible handwriting*

and difficulty with understanding what has been read, that is poor reading comprehension". In addition, Participant 19 agreed with the notion and added that "*a learner with dyslexia often spells their name wrongly, reads words incorrectly and hardly identifies own mistakes even in reading.*" Participant 24 brought another dimension and indicated that "*learners demonstrate poor reading competences…*"

Participant 25 who said that "*A learner with dyslexia cannot follow the correct sequence of days*" brought an interesting view. Participant 27 who added that "*…short-term memory and difficulty in expressing thoughts as well as poor development of vocabulary*" shared the same sentiments. In addition to what was mentioned about failure to pronounce words correctly, Participant 28 pointed out that "*…*[learners] *process words much slower leading to a slow reading pace and making above average spelling mistakes.*" In closing, Participants 29 and 30 highlighted that "*…* [learners] *struggle to read basic words confusing words and letters.*"

4.2.4.2 Interpretation

To answer Question 8 almost all the responses indicated that learners with dyslexia have difficulties that can hinder their learning which can then impact the teachers' efforts to support them.

Poor vocabulary development retards learning in many ways. Learners are expected to write, read, and express their opinions on given topics. Spoken language can also be affected by poor development of vocabulary. Presentations that form part of assessment in language lessons can be affected if a learner presents with poor vocabulary.

4.2.4.3 Learner's failure to understand what it is written.

In a learning and teaching situation there are oral, reading, and practical lessons that are done. Sometimes learners need to read on their own and respond to given instructions. If individuals are reading words, sentences, a paragraph, a story, or a book they need to understand what they are reading about. Failure to understand the reading material can retard the learning process.

The participants pointed out that they were able to notice learners who were not able to understand what was written. In that regard, Participant 2 stated that "… [learners]

struggle to read and write." According to Participants 3 and 13 the indication is that *"The reading level of a learner with dyslexia is below that that of his peers."* It was further mentioned by Participant 3 that *"…the learner gets frustrated with seemingly jumbled letters."*

Participant 4 who said, *"Learners with dyslexia do not answer correctly in tests, because they are failing to understand what is written,"* presented another interesting point. In support, Participants 6 and 7 added that *"…dyslexics struggle with reading and writing tests, they do not know how to answer questions …associated delays in learning to read with dyslexia."* Participants 11 and 12 highlighted that dyslexia was noted *"…from those learners who are very slow in writing or understanding new subjects… being slow in understanding learning matter."*

Participant 17 said that an individual with dyslexia has, *"severe difficulty to do sight reading (word recognition) inadequate phonetic awareness, illegible handwriting and difficulty with understanding what has been read, that is poor reading comprehension."* Participant 19 said that a learner with dyslexia, *"often spells their name wrongly, reads words incorrectly and hardly identifies own mistakes even in reading."*

4.2.4.4 Interpretation

If a learner cannot understand what is written, it can be a result of the inability to read. Sometimes a learner can read pictures; for example, if the passage being read is accompanied by pictures. A learner with this kind of a challenge is unable to answer comprehension questions. The learner cannot take instructions from what is written. It will mean that the teacher reads everything being taught in class, thereby causing the teacher to dedicate time to the learners who cannot read what is written, thereby disadvantaging other learners. There is need for teachers to tailor-make the lessons to accommodate individual learner needs. This is taxing for teachers considering the disproportionate teacher-learner ratio.

4.2.4.5 Poor organisational skills.

A lack of organizational skills in terms of processing information and letters is also a common problem with learners who are dyslexic." Participant 21 who mentioned that one could tell if a learner has dyslexia if a learner *"shows poor organisational and*

time management skills." This is also supported by the International Dyslexia Association (2002) that states that dyslexia can also be seen in poor demonstration of some skills like organisational and time management skills.

4.2.4.6 Interpretation

A learner with poor organisational and time management skills is generally slow when working. The individual tends to forget learning material at home or for some subject's classes. With time allocated per lesson, it becomes a challenge for the learner to be on time for the lessons and may fail to achieve the set goals thereby failing to perform as expected as result of missing explanations of some concepts.

4.2.4.7 Learners' poor reading skills

Reading is a concern for learners who are dyslexic. In that regard, Participant 10 stated that learners with dyslexia "Do not feel comfortable with reading aloud." The same participant and Participant 30 pointed out that a learner with dyslexia, "*mixes letters such as 'b' and 'd'.*" It was also highlighted by Participant 14 that a learner with dyslexia "*cannot retain words learned … fails to decode words… guesses words widely and says things that are from their head and not what it is written.*" In agreement with others, Participant 15 contributed by stating that "… *by the way they write and pronounce some words.*" The same participant mentioned that "*such a learner tends to pronounce and spell words wrongly*, when the learner is supposed to write 'bad' they write 'dab'."

Participant 22 highlighted that a learner with dyslexia "…*reads without paying attention to punctuation marks, skips some words when reading, and also performs poorly in class.*" Another view was presented by Participant 23 who added that "… *stammers when reading, skips some of the words, swallows them, fails to follow instructions for example when carrying out an experiment, fails to spell words correctly, fails to interpret for example auditory and visual skills.*" These views that were given by the participants were highlighted by Miller (2015) who stated that an individual with dyslexia has a problem in processing visual and auditory information as well as coordination of messages, as the brain might send wrong signals to the different parts of the body.

In addition to the already mentioned observations Participant 24 noted that an in individual with dyslexia "*struggles to copy from the board*." Participant 25 was of the view that "*a learner with dyslexia cannot follow the correct sequence of days.*" The same sentiment was mentioned by Participant 27 who added that "*short-term memory and difficulty in expressing thoughts as well as poor development of vocabulary*" *were* some of the indicators of dyslexia. In addition to what has already been mentioned as signs of dyslexia, Participant 28 pointed out that "*…processes words much slower leading to a slow reading pace and, making above average spelling mistakes.*" According to Participant 29, "… [learners] *struggle to read basic words*."

4.2.4.8 Interpretation

Poor reading skills can be a result of several factors, among which is visual problems, failure to read from a board or textbook. There is need for the teachers to make a thorough check of what the problem could be and not presume that a learner is dull or lazy. Sometimes a learner might have missed the concept of punctuation during the introduction to reading. A thorough diagnosis is required before drawing conclusions.

Seeking the advice of a skilled person on how to teach reading will help. If the schools have remedial classes for languages, the services of the specialists can be used. Teachers of other subjects besides languages might not pay much attention to punctuation and other concepts that are related to reading, but slow processing of information can be a challenge. Reading problems need to be addressed throughout the curriculum to ease the pressure that might affect teachers of other subjects besides languages.

Learners have a difficulty in understanding new subject matter and tend to say things from their head and not what is written. It is difficult for the teacher to teach and support a learner who reads what is in their head instead of what is given on a page of reading.

4.2.5 Theme: Assessments to Detect Dyslexia

The purpose of Question 9 was to determine the assessment methods that participants used to determine if a learner has dyslexia. Figure 4.10 below provides a graphical description of the answers.
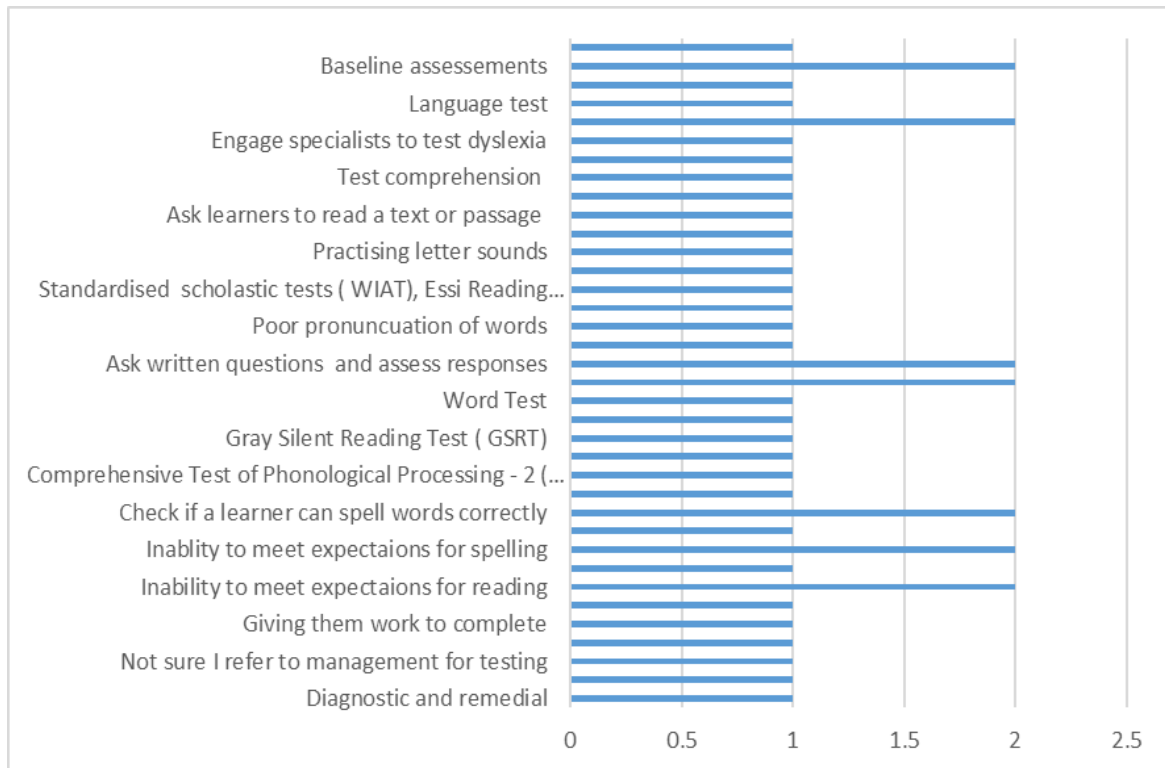
Figure 4.10: Assessments used to determine if a learner has dyslexia

The following sub-themes emerged.

4.2.5.1 Baseline diagnostic assessment tools

When confronted with learners presenting with learning difficulties, it is necessary to establish the problems and offer appropriate support. To support this suggestion, Participant 25 pointed out that *"Baseline assessments must be used* to detect dyslexia." Similar sentiments were made by Participant 30, who said that assessment for dyslexia includes "*Diagnostic assessment.*"

Participant 13 pointed out that "*Depending on which of the four areas (read, write, spell and speak) the student is lacking in the most, I use either, one or a combination of the following: Comprehensive Test of Phonological Processing -2 CTOPPP-2, Gray Oral."* Participant 28 agreed with Participant 13 who suggested the "*Gray Silent*

Reading Test, The Gray Oral Reading Test and Rapid Word testing. Reading Test (GSRT), Rapid Automatic Naming / Rapid Automatic Stimulus (RAN/ RAS)."

4.2.5.2 Interpretation

The response to this sub-theme shows that the participants understood that before one can arrive at a conclusion about a problem that a learner presents with, some baseline assessment should be conducted to enable the teachers to know the learners' existing abilities in order to give appropriate intervention. It was interesting to note that two participants were aware of specific standard assessments that can be used to test dyslexia. These are the GRST as well as the Rapid Word testing. In both cases the teacher must be able to conduct the tests. It appeared that some of the respondents to this question underwent special education training as they made mention of specific testing methods to determine learners' position as far as dyslexia is concerned.

4.2.5.3 Sub-theme: Engagement of specialists to test dyslexia

It is a good step to seek professional advice, if teachers are not sure of how best to identify and support learners with learning difficulties such as dyslexia. Participant 17 stated that "… *do referrals to remedial therapists, speech therapists and occupational therapists. Recommend assessment concessions to accommodate the learner during tests and exams. Provide guidance to parents in terms of managing the disorder."*

4.2.5.4 Interpretation

Even though they can get help, teachers still need to be equipped with knowledge on the diagnosis and support of learners with dyslexia, considering that in any given class, the teachers are likely to meet learners presenting with dyslexia thereby facing challenges when dealing with them. Providing learners with reading text and comprehension and then assessing their responses is essential.

Reading is key to all subjects. If a learner cannot read with understanding, it becomes difficult to give that learner questions to answer. Assessment follows each term's work. Learners are expected to write tests and exams so if a learner cannot read and comprehend what is being read, writing a test becomes a challenge.

To answer the given question, Participant 1 stated that to assess learners for dyslexia, "*give learners a comprehension that they must write and complete.*" Participant 2 said "*…read the question and let the learner answer.*" Participant 4 said, "*I give simple tests.*" Participant 7 believed that "*auditory and visual assessments are used to assess dyslexia.*" Participant 8 mentioned "*…if a learner is not able to meet the expectations for reading, writing, and spelling.*" Participant 9 stated that "*A learner with dyslexia has problems in interpreting comprehension.*" Participant 17 stated, "*…simply ask them to copy a paragraph from a given text, ask them to read it …*" The same participant added that "*An IQ test - The SSAIS-R (I want to know what the child's cognitive potential is), standardised scholastic tests (WIAT), Essi Reading and Spelling Tests, the Stark Griffin Dyslexia Determination Test, Writing tasks.*" Participant 20 was of the view that "*learners must be given tests that assess reading fluency, comprehension and decoding.*"

Participant 22 said, "*…I usually test learners by using spelling and written language tests.*" With a different perspective, Participant 24 mentioned that "*…online Free Tests like Lexercise Screener*" which is used to test reading. Participant 29 stated that she, "*… ask[s] oral and written questions and assess[es] responses.*"

4.2.5.5 Interpretation

Testing learners for dyslexia in various ways is an advantage, as it allows for teachers to arrive at a proper conclusion about the concepts that are a challenge to the learners. Specific reading concepts need to be tested, for example, pronunciation and punctuation. If the teacher is aware of the learning problems that the learner is experiencing, there is a reduction in challenges for the teacher as the right approaches to solve these problems will be used.

4.2.5.6 Referring learners to management for testing

Not all school managers have knowledge or training in dealing with learners with special educational needs. Referring learners to be tested by school managers who do not know what dyslexia is will not be beneficial. Participant 3 stated that "*I am not sure… I* refer *learners that are suspected to have dyslexia to management for testing.*" The question that arises is: "what if the management has no knowledge of dyslexia, how will they know which assessment methods to use?"

Reid (2013) supported the suggestions that were raised by the participants on how they assess learners to establish if they have dyslexia, by indicating that children with dyslexia can be identified through screening tests.

4.2.5.7 Interpretation

While it is the management's role to support teachers in dealing with learners with special educational needs, it should be noted that managers might lack the ability to test learners for dyslexia. However, school management can arrange workshops for teachers so that their skills in assisting learners with learning challenges are sharpened. This will ease the pressure on the teachers.

The responses to the assessments methods that can be used to determine if a learner has dyslexia or not, showed that some of the participants did not know what they could do to determine the disability. These responses include statements such as "engaging specialists to test for dyslexia and referring learners that are suspected of having dyslexia to be tested by the school management teams". It was raised as a challenge that some school authorities are not aware what dyslexia is so referring learners to them for testing can be a challenge except in cases where there are school-based support teams (SBST).

4.2.6 Intervention Strategies in Dealing with Learners with Dyslexia

The purpose of Question 10 was to find out the intervention strategies used when teaching and supporting learners with dyslexia. Figure 4.11 below provides a graphical description of the answers.
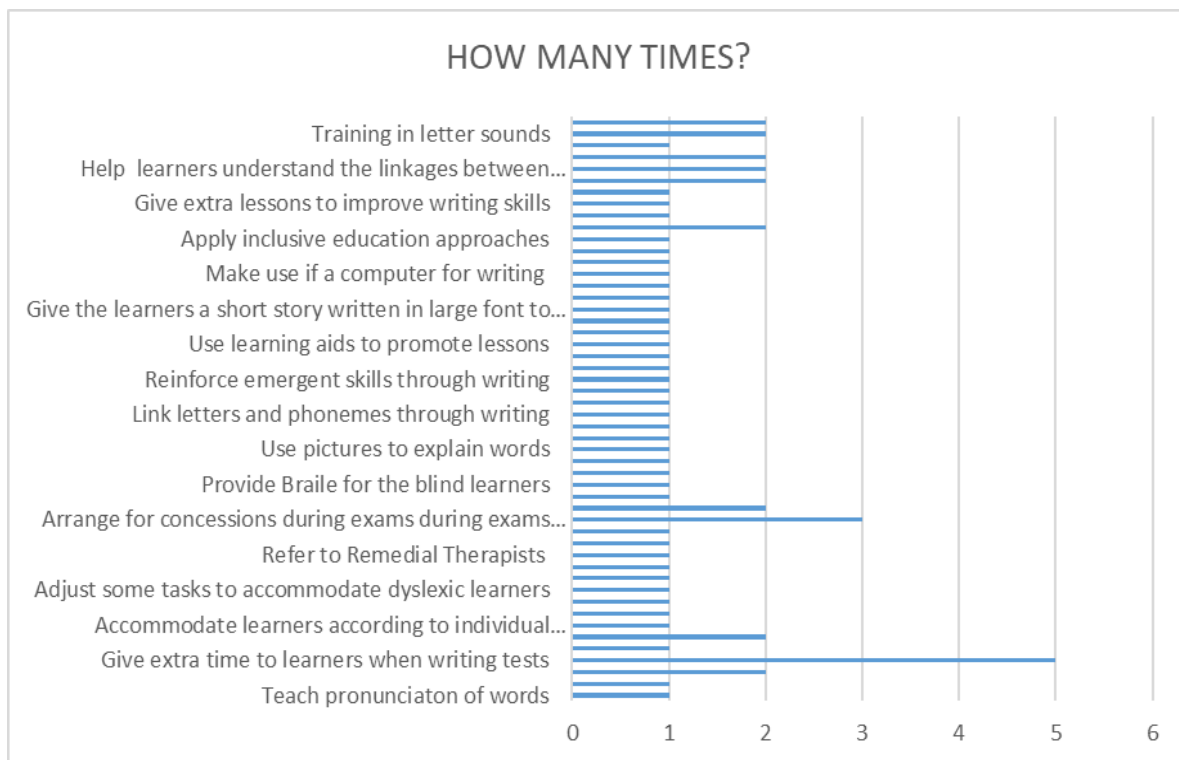
Figure 4.11: Intervention strategies used in dealing with a learner with dyslexia

The following sub-themes emerged from the above theme:

It is important that as the process of learning and teaching takes place, the teacher identifies and supports learners with learning challenges such as dyslexia. For proper intervention to take place, there is need for the teacher to have the necessary skills. The following sub-themes emerged from the theme above.

4.2.6.1 Provide individual assistance to learners as per their needs

It is not always easy to attend to all learners' educational needs simultaneously as they present with different learning problems. It is, nevertheless, important that the teacher creates time to attend to the learners' individual learning difficulties or deal with them in smaller groups if their problems are common.

For interventions to be successful, the teacher should use various methods and avoid a one-size-fits-all approach. Participant 4 said, "… *learners with dyslexia need special attention."* Participant 9 highlighted that as an intervention strategy to assist learners with dyslexia, "*Extra time is needed to complete tasks.*" This was supported by Participant 28 who stated that an intervention strategy was to "*…assist the*

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learners to understand the different letters and give more attention and time to the learners that require more learning assistance."

Another dimension was put forward by Participant 1 who mentioned "*Extra classes…*" Participant 2 and Participant 4 added that "'*Extra work is required during intervention of dyslexics.*" While teaching reading to dyslexics is a good step towards achieving positive results, Participant 7 suggested that "*silent reading must be done with dyslexics, and the teacher must avoid asking them to read aloud in class.*" By so doing the participant might be trying to avoid embarrassment for the learner which might impact their confidence; for example, if during reading aloud a word is pronounced incorrectly or the learner stammers or fails to read resulting in derisory remarks made by the rest of the class.

According to Participant 8 "*…I train learners in letter sounds, linking letters through writing and reading from texts.*" Participant 13 mentioned "*…training in phoneme awareness and linking letters and phonemes through writing and reading from texts at the appropriate level to reinforce emergent skills and, to repeat a text when reading.*" Participant 20 agreed with this view and added that "*…give them a very short story with large font to read, any words they can from the short passage.*" The same participant further stated that "*…pick up the words they identified, then a few more each time with the same sound or pattern.*"

Participant 21 highlighted that "*…I try to accommodate learners based on how they learn. Some tasks are altered so that it is easier for dyslexic learners to follow what is being taught in class.*" The same participant explained accommodation by stating that "*…the content is never changed but how it is packaged is what changes to make it easier for the learners to understand it.*" Participant 25 shared the same view by stating that "*…breaking down tasks, giving extra time to the learners for tests and research and better equip self in making learning easier.*"

Participant 22 highlighted that "*…I use a more inclusive approach to learning, without compromising the quality of education for other learners who do not have dyslexia.*" Reid (2013) supported using an inclusive approach by stating that teachers should ensure that a suitably differentiated curriculum is made accessible to all learners so that they get an opportunity to develop and apply their strengths.

A suggestion was echoed by Participant 18 who said that "Teachers *are to attend staff development workshops about teaching learners with dyslexia.*" Such training equips teachers with inclusive approaches as mentioned above. To boost the learners' confidence in class, Participant 23 noted that "*I do extra sessions with learners that have dyslexia to help them improve their reading, writing, and listening skills.*"

Participant 30 mentioned that "…*Individual assistance and tutoring are intervention strategies that can be used when dealing with learners with dyslexia."* Vygotsky's social constructivist theory points out that the learners' cognitive structures are still in the process of maturing and can only mature under the guidance of or in collaboration with others.

4.2.6.2 Interpretation

By giving learners individual attention, the teachers will be able to address the learning problems that the learners present with. This will reduce wasting of time of the learners who have none or fewer learning difficulties, at the same time making it easier for the learners who do not extra support to continue learning without being delayed. It is beneficial to pay attention to individual learners' needs as it ensures that no learner is left behind which is what inclusion is all about.

As teachers are expected to account for learners' poor performance, extra time given to learners helps them to complete given tasks, thereby reducing teachers' frustrations. The use of accommodation will promote the teaching and learning process as the work will be made simpler for those learners with dyslexia. The content will remain the same, except that it will be simplified, thereby lessening the teacher's stress of explaining repeatedly.

4.2.6.3 Make an application to the Department of Basic Education for learner concessions

Teachers have the closest interactions with the learners and know their learning challenges better than the school such authorities including the DBE officials. The fact that learners with dyslexia have learning difficulties it means, to attend to the problems they present with, special attention will be required. According to

Participant 3, there is need to "*offer concessions during assessment and give longer time to do given tasks.*"

4.2.6.4 Interpretation

As highlighted above by some of the participants, applications for concessions are sent to the DBE, although some are approved while others are not. There is nothing wrong in applying for a concession. Teachers teach and support learners with learning difficulties, and they are the people who experience challenges when learners are not following what is taking place. It is frustrating if approval of their requests for concessions are delayed or are not approved at all. It would be of great benefit if the education authorities would trust the teachers' opinions by approving the concessions to reduce problems for the teachers.

4.2.6.5 Involvement of parents in supporting their children

Parents and guardians play a major role in the learning of their children. They are a key stakeholder. They need to work hand-in-glove with teachers, for example, by encouraging their children to do their homework. Sometimes it is possible that parents are not sure about how to help their children do their homework, perhaps because they are not educated enough to comprehend the given tasks, or they are too busy with their own matters.

It comes as a disappointment to parents if teachers do not identify their children's learning difficulties on time. Involving them and keeping them updated about their progress plays a major role in closing the gap of misunderstandings. Participant 17 mentioned the need to "*Provide guidance to parents in terms of managing disorder.*" According to Reid (2013), the responsibility for assisting learners with learning difficulties should be shared by the SMT, professionals, parents and other stakeholders. If they do not work together, learners are negatively affected academically.

4.2.6.6 Interpretation

As key stakeholders, parents expect to be notified of their children's learning difficulties as soon as the teachers detect them. Even if this happens, not all parents are able to assist their children in doing homework and other assignments because

they are not educated enough to help with schoolwork or for other reasons. For whatever reason, a conflict can arise between the parents and teachers as the teachers might be seen as pushing schoolwork onto the parents no matter what challenges they might be having pertaining to assisting their children to do assignments.

It some circumstances the teachers might view parents as being uncooperative. Teachers need to find ways of assisting parents to help their children do homework. Parents can be asked to remind their children to do homework. The teachers need to ensure that homework is thoroughly explained to the learners before they leave school and give them examples of what needs to be done.

4.2.6.7 Organize equipment for learners with problems related to sight and hearing.

Use of proper equipment for learners with dyslexia, contributes a lot to the teaching and the learning process. Such equipment can help them to see or hear with less difficulty. It is not easy to read if one cannot see clearly. Other equipment includes computers and Chromebooks[1].

Participant 15 and Participant 29 stated that one intervention strategy was to "…*administer assessments orally and encourage use of computers.*" Participant 23 agreed with the use of computers pointing out that" computer-*based system should be used*." It was further mentioned that when "…*clear instructions should be given and the use of learning aids to promote lessons must be employed.*" Participant 27 highlighted that "… *sound cards with letters such as 'b' and 'd', pictures to explain words as well as reading on computers"* could be used.

According to Participant *10, "Use of reading software or devices"* can be used when teaching a learner with dyslexia*." "The use of audios" w*as also an intervention strategy to use in dealing with dyslexics. Participant 24 mentioned "*The use of a reading pen or reader software …"*

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[1] A Chromebook is a laptop that runs on Google's Chrome OS, a lightweight operating system that largely relies on the Chrome browser as its main user interface. This means that anything you can do with the Chrome browser, you can do on a Chromebook. (Techradar, 2022)

4.2.6.8 Interpretation

The EWP6 advocates for inclusion that aims at ensuring a learning environment that will cater for all learner needs including those with barriers to learning such as dyslexia (Landsberg et al., 2011). Inclusion seeks to ensure that learners are not deprived of their right to education by being left behind or not being attended to fully. Sourcing equipment to assist learners with special educational needs is in line with the expectations of inclusion.

Use of a computer for writing, as well as audio software, text-to-speech software and tablets were cited as some of the intervention strategies that can be used when teaching and supporting learners with dyslexia. If the schools fail to source the equipment, learners with learning needs can be at a disadvantage as some parents cannot afford to buy it. In addition, the use of such equipment can be a challenge to the teachers if they lack the skills of how to use them. This calls for the schools to organize workshops, on the use of special equipment to assist learners with dyslexia and other special learning needs.

4.2.7 Challenges Experienced in Dealing with Dyslexics.

Question 11 sought to find out the challenges that teachers experience when teaching and supporting learners with dyslexia. Figure 4.12 below provides a graphical description of the answers.
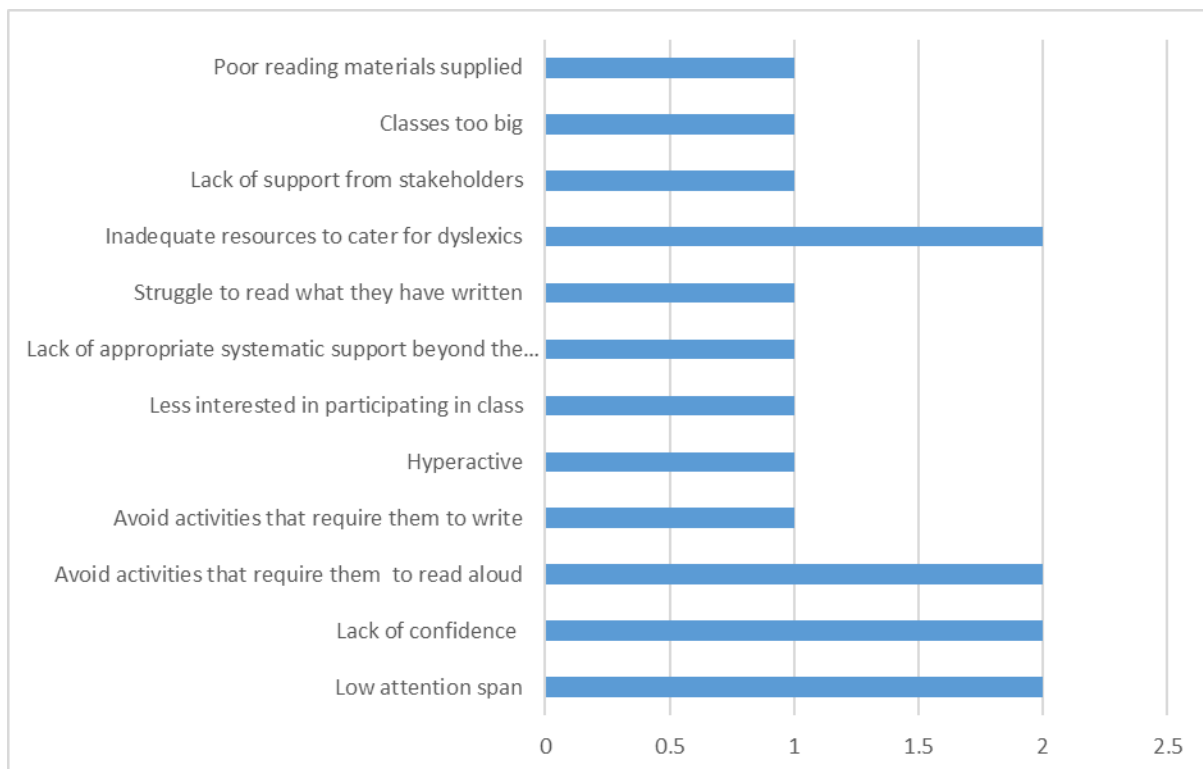
Figure 4.12: Challenges experienced when teaching a learner with dyslexia

During the teaching and learning process, challenges are likely to occur. Some of these can go unnoticed, some can be noticed but dealing with them can be a challenge. These can include failure to comprehend the subject matter being taught or lack of equipment to support the learning process.

4.2.7.1 Lack of support from stakeholders

Participant 8 mentioned "*Lack of support from the stake holders, large classes and supply of poor reading materials as challenges that are experienced when teaching learners with dyslexia.*" In addition, Participant 28 touched on "*the lack of appropriate systematic support beyond the classroom such as, having more special side classes that have a slower learning pace than regular classes.*" Participant 29 maintained that "*If they were in a 'normal' class, they might be left behind.*" The aim of the DBE is that no learners must be left behind. Classes must be inclusive enough to accommodate all learners despite their disabilities. This is also alluded to by Monyai et al., 2019 who spelt out the aims of inclusive education that include promoting equity, justice and quality of education by ensuring that all children have access to education irrespective of their disability.

4.2.7.2 Interpretation

Realising that in almost every class there are learners with dyslexia, the school authorities need to ensure that the teacher-learner ratio is observed as recommended by the DBE. If the classes are too big, the teachers get demoralized making it difficult to effectively deliver the expected service.

It is difficult to teach if there is inadequate reading material. To reduce stress on teachers, the stakeholders need to ensure that the provision of reading material is addressed to promote the learning and teaching process.

4.2.7.3 Managing the parents' expectations about their children

Parents are not happy when their children's learning difficulties are not identified at an early stage. Teachers might find themselves faced with a challenge in dealing with the parents if they do not identify and support learners with learning difficulties on time. Parents are expected to assist learners in doing homework and other assignments. This might not always happen. It will depend on whether they understand their children's homework or not

According to Participant 13, "*It is a huge challenge to try to manage the expectations of the learners' parents as most of them expect more from their children and the teacher than the learners can realistically do.*" There is a need to inform parents of their children's academic challenges as soon as they are noted to ensure the parents' support in their academic development. This is supported by Anderson et al. (2017) who highlighted that parents and mentors play an important role in emotional adjustments related to adolescents with learning disabilities.

Teachers need to ensure that they do all they can to help the parents accept that while, they have expectations about their children, sometimes they cannot be fulfilled depending on the learning disabilities that their children have. Alawadh (2016) pointed out that parents can present with strange behaviours when their expectations about their children are not met. Preparing the parents can help in dealing with their expectations.

4.2.7.4 Interpretation

It is the duty of the school to organize consultation days, so that the parents can discuss their children's school progress with the teachers. By so doing, the parents will be kept abreast of their strengths and weaknesses. It will not come as a shock if their children are not successful in following certain career paths. Parents have wishes about the careers that their children should take up after Matric. Trying to address parents' expectations only in the last school year or late in the child's school career can be a challenge that results in the frustration of the parents, the teachers and the learners.

4.2.7.5 Inadequate resources and training to handle learners with special needs such as dyslexia

Some of the learners with special educational needs must use certain tools to help them during the learning process. Participant 21 mentioned that a challenge faced when dealing with learners with dyslexia is "*Access to tools that can assist learners for example hearing aids. They can be used for learners that have hearing challenges. Hearing is a major element of skills development and coordination for students.*" From the researcher's understanding it does not mean that learners with hearing problems are dyslexic instead technology that can benefit learners includes spell checkers, mind mapping software, text-to-speech software, tablets, smartphones and others to mention a few www.dyslexia.uk.net. To support this view, Monyai et al. 2019 pointed out that inclusive classrooms have been seen to be beneficial to both the learner and the teacher. Thus, if the learners are provided with the right equipment, learning can be promoted.

Another challenge mentioned by the participants when dealing with learners with dyslexia, was not having sufficient training about how to manage learners that suffer from dyslexia. This was mentioned by Participant 23 who stated that "*I did not train for special education so, all I do is follow normal lesson planning though I give remedial work.*" Reid (2013) mentioned the need for staff development in dealing with learners with special educational needs. The same participant added that "*School pressure as well as assessment deadlines*" were the other challenges faced when teaching and supporting learners with dyslexia.

Reid (2013) highlighted that the teachers face lack of resources. If resources are inadequate, teaching is retarded. This was echoed by Participant 2: "*…there are no tablets or Chromebooks for students so that we [can] use them for computer text-to-speech system*."

4.2.7.6 Learners' low self-esteem and lack of confidence

According to Participant 1, challenges experienced when teaching learners with dyslexia are that "*The learners tend to fall behind with work. I constantly have to go back and check them*." Participant 2 mentioned "*…attention."* This view was echoed by Participant 4 who mentioned that "*Learners are not focusing on class*." In addition, Participant 6 stated that "*The learners become disruptive."* From Participant 3's view, "*Learners show unwillingness to try, due to frustration and embarrassment."* A different observation was noted by Participant 7, who stated that "*The learners present with confusion."*

Participant 9 mentioned that "*…learners do not want to participate in class*." Another dimension was brought by Participant 10 who indicated that the challenge faced when dealing with learners with dyslexia was that they "*struggle to read what they have written*." According to Participant 11, writing speed was seen to be challenge when working with dyslexics. This was noted in the response that "*…the learners are slow to write, and their work is always incomplete*." The same participant went on to say that learners with dyslexia "*Take long to understand."*

Participant 12 said that there was a challenge of "*…repeating the subject matter to accommodate a learner with dyslexia*." Participant 13 mentioned that "*…having to give special attention to the learner while having many other learners in the classroom, encouraging the learner, educating myself and the learners about dyslexia, lack of resources and support from the school"* were challenges that were experienced when dealing with dyslexics.

Another difficult situation was highlighted by Participant 14 who indicated that the challenges faced when teaching learners with dyslexia were "*getting stuck and failing to continue."* The same participant went on to say that "*The point of offering help is not clear; in fact, it makes the teacher run out of ideas. It makes the teacher ask questions like, 'Is it the eyesight, is it phonics, is the learner mentally retarded?'"*

Participant 14 added that "*There are more questions before taking the next fruitless effort.*"

Participant 15 included "*Failure to understand what the learner writes and also spending more time in marking the work because I will be trying to get meanings of words*" among the challenges faced by teachers when teaching dyslexics, "*Low self-esteem*" was a challenge that was identified by Participant 17. The same participant also agreed with Participant 11 by noting that "*Learners with dyslexia work at a slow pace because they process information slowly.*"

Participant 22 said, "*The learners that I have come across generally have low attention spans. They are also not very confident and need more attention to boost their confidence. They also avoid activities that require them to read out aloud or write. In some situations, they are also hyperactive during class time.*"

4.2.7.7 Interpretation

If a learner has reading difficulties, they are likely to feel embarrassed to read in front of the class thereby losing confidence. The teacher must avoid preparing a one-size-fits-all type of a lesson but produce lessons that will cater for all learners' needs at different reading levels.

4.2.7.8 Class sizes and the workload

In order to support and teach learners successfully, the classes must be of a manageable size. There must be adequate and relevant resources. User-friendly classrooms are part of the resources.

According to Participant 18 and 20, "*Lack of resources*" was identified as a challenge when dealing with learners with dyslexia. Participant 19 noted that "*It is difficult to teach learners with dyslexia because classes are too big.*" This concern was also raised by Participant 12 who mentioned that "*I find it difficult to give individual attention.*" The same participant further mentioned that "*All the content must be covered within the specified timelines leading to the retardation of progress.*" Participant 30 agreed with the above-mentioned participants by stating that supporting dyslexic learners was "*…time-consuming due to individual attention requirement.*"

According to Participant 23, a challenge that teachers experienced when dealing with learners with dyslexia was *"Too many students per class or unfair teacher-learner ratio."* Participant 25 added another dimension, stating that "*Lack of materials and students' lack of assistance with work taken home*" was a challenge. While this Participant 25 saw this as a challenge, it is not clear if the learners' parents were well educated and could comprehend the homework given to their children or if they had enough time to assist them.

"*Difficulty in marking what the learners have written*", was a challenge indicated by Participant 24. Participant 27 stated that "Lack *of appropriate facilities makes it difficult to deliver quality teaching. Conducive learning environment. Delivering appropriate lesson is impossible. I am not well trained in teaching learners with dyslexia and too many activities after school are another challenge…*" The need for appropriate facilities was echoed by Lesenya et al. (2018) who mentioned that lack of appropriate facilities makes it difficult for the teachers to deliver quality teaching and support to the deserving learners.

4.2.7.9 Interpretation

In addition to big classes that deny the teachers the opportunity to offer thorough individual attention to the deserving learners, teachers found themselves with an extra workload, namely, co-curricular and extra-curricular activities. These activities take away the time that the teachers need to support learners with dyslexia and other learning challenges. The school authorities need to find a way of ensuring a fair distribution of duties, for example, by motivating the DBE to hire specialist teachers to offer subjects like Physical Education and Creative Arts to allow for time for remediation and support. The paperwork that the DBE expects from the teachers takes away from contact time.

4.2.8 Challenges Faced when Applying Strategies to Support Dyslexics

The purpose of Question 12 was to establish the challenges that teachers face when applying strategies to support dyslexics. Figure 4.13 below provides a graphical description of the answers.
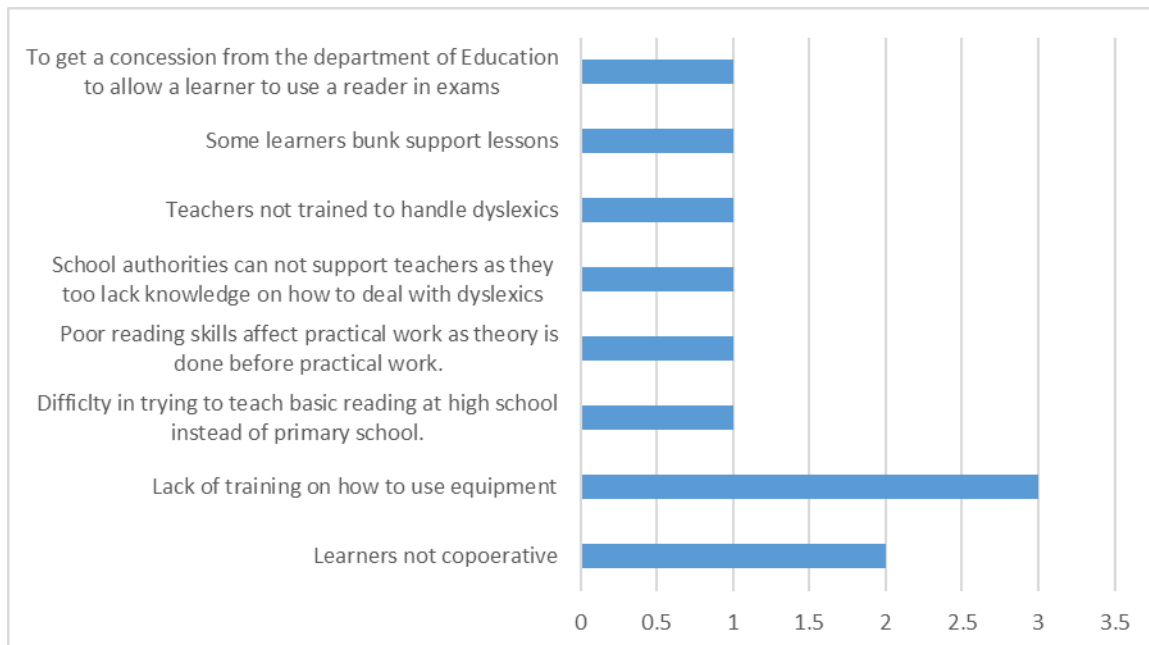
Figure 4.13: Challenges in applying strategies to support a learner with dyslexia

4.2.8.1 Lack of cooperation from learners.

The learners' attitude is a very important aspect if the learning process is to be successful. If learners are not cooperative, they make the teachers' work difficult. A concern highlighted by Participant 4 was that "*Learners are not willing to participate in intervention or support classes."* Participant 6 agreed with this view by pointing out that *"They are not committed enough*…" The same sentiments were echoed by Participant 12: "…*such learners do not attend support sessions."* According to Participant 15, "*At times the learners are not cooperative."* In addition to the learners' unwillingness to receive support given by the teachers, Participant 18 highlighted that "…*some parents are in denial about the state of their children."* This might be the reason why some of the learners are not willing to attend support lessons*"*

Coming up with a different observation, Participant 2 and Participant 19 noted that "*time…*" is a challenge*,* when dealing with dyslexics. Participant 20 elaborated on this view by pointing out that teaching learners with dyslexia was "*time-consuming as we have to teach them according to their different levels of understanding.*" This was mentioned by Participant 13 is stating that "*the learners often need patience and encouragement to accept their condition and learn at their own pace."*

Participant 1 mentioned that the challenge that was experienced in applying strategies to support learners with dyslexia was that "*Some of them have difficulties and do not understand anything.*" This comment agrees with what Participant 14 noted by stating that "*Yes, I do offer help but the following hour or day, the learner would have forgotten everything and that discourages a lot.*" "*Time management and organisational skills*" were seen by Participant 27 as a challenge when teaching and supporting learners with dyslexia.

4.2.8.2 Interpretation

Time-consuming as it might seem to attend to learners with dyslexia, individual support is necessary if at all teachers are to teach and support all the learners irrespective of their individual needs. This is in line with the EWP6 that clearly outlines the teacher's responsibility to provide a supportive inclusive education environment for the learners with special educational needs. By dedicating time to the learners with learning difficulties, no learner will be left behind.

In terms of learners who are not willing to participate in support classes, teachers need to devise ways of motivating them to attend classes. Teachers need to ensure that learners do not feel like they are dull but make them understand that they have learning challenges that need to be addressed. One of the respondents who was interviewed telephonically indicated that some of the learners bunked lessons as they had to be on time for their transport home.

4.2.8.3 Approval from the Department of Basic Education for learner concession takes a long time

Approval of learner concessions by the DBE is beneficial to the deserving learners as it allows for the learners to complete assessments without hurrying over them without understanding. Sometimes the teachers expect the approval to happen overnight as they are concerned about the challenges that the learners might be going through concerning their learning and writing of examinations. Sometimes the DBE does approve the concessions on time, but sometimes they are never approved and that disadvantages the learners.

Among the participants who raised the above concern was Participant 10 who mentioned "*Getting a concession from the Department of Education…*" Participant

17 added that "*…schools can be resistant to apply for concessions for such learners.*" Participant 24 agreed with these two participants by adding that "*Getting a concession from the department for a learner to use readers for examinations is a challenge.*"

4.2.8.4 Lack of training on how to support learners with learning impairments

For an individual to effectively perform required tasks, the individual must possess certain skills. This applies to teachers as much as to learners. Teachers must have the requisite knowledge and skills to teach and support learners with dyslexia and other learning difficulties. Where necessary the school must see to the training of the teachers through staff development programmes as this will go a long way in supporting the teachers to support the learners with learning problems.

According to Participant 13, *"There is very little support about this from the school, so it is difficult to do much.*" The same participant went on to say, "*most of the activities that I have implemented have been based on my personal experience as a teacher. Most children with dyslexia are not supported by their families. I believe that dyslexia should be actively managed by the organisational structures, the teachers, and the families that the learners come from. This way the learners have a better chance of managing and overcoming dyslexia at an early stage of their lives. More awareness of dyslexia is needed because most people do not fully understand it, which affects how they manage it.*"

The other challenge as noted by Participant 15 was "not *having the proper training on how to deal with dyslexics. It is also very difficult to try and help these learners as they are now in high school, this should be dealt with from Grade 1 to* 3." Peer and Reid (2016) noted that the transition from primary to secondary school creates increasing pressure on literacy skills coupled with a change in conceptual load of the secondary curriculum.

4.2.8.5 Interpretation

Patience is key pertaining to the waiting period for the DBE to process the applications and test learners with special educational needs to check if they really deserve the concession. Meanwhile with the help of the SMT, the teachers can find ways of supporting learners to carry on with schoolwork.

4.2.8.6 Lack of support by the school authorities in dealing with learners with dyslexia

It is the responsibility of the school authorities to see to it that teachers are assisted to ensure that learners with learning difficulties get the support they need to perform well and achieve the desired results. This support can include organising workshops to develop in teachers the skills they need when dealing with learners with dyslexia and other special needs. This training can include use of equipment as well as tailor-making lessons to cater for individual needs. If the teachers do not get the expected support from the school authorities, their work can be challenging.

According to Participant 21, the *"Schools are not equipped to support learners and teachers to properly manage dyslexia."* It was further noted that *"there is limited training and dyslexia is not well understood at the leadership level of government education departments."*

In addition, Participant 22 mentioned that "…*There is poor structure with regards to acceptable standards and practices when managing learners with dyslexia.*" Reid (2013) pointed out that support should be given in the classroom with dyslexia-friendly standards.

The school authorities need to ensure that there is adequate equipment to use with learners with learning difficulties such as dyslexia. This was highlighted by Participant 23 who mentioned that the challenge faced when applying strategies in dealing with learners with dyslexia were that "*The equipment is sometimes limited, and most learners have reading challenges, we end up relying mainly on what we write on the board.*" To support this point on the need for adequate equipment, Reid (2013) highlighted the need for the availability of proper equipment as well as the teachers' skills in supporting learners that have special educational needs.

On a different note, Participant 23 noted that "*Morale is disturbed in that there are too many learners that need support."* It was further stated that *"…deadlines for assessments deny us a chance to fully support learners with dyslexia. Some teachers do not dedicate time to the students with learning difficulties and this needs teamwork."*

Participant 25 raised a concern about *"Lack of knowledge about how to use a Braille [machine] for reading as difficulties in reading affect learning new things as theory needs to be done before practical work*."

To further express the challenges that are faced when applying strategies in supporting and teaching learners with dyslexia, Participant 27 highlighted *"Lack of resources, lack of knowledge, teachers' workload, overloaded classes, teaching mixed ability learners, the attitude of parents and too much paperwork*…" Participant 29 also stated that *"lack of resources was a challenge."* The same sentiments were echoed by Participant 30 who added *"…lack of personal time, lack of assistant teachers and lack of access to assessment tools…"*

Teachers are expected to teach and support learners with dyslexia and other learning problems. Unfortunately, some situations are beyond their control and can limit them from performing as expected. This was confirmed in what Participant 19 stated: *"…If classes are too big it is difficult to give individual attention and to attend to learners outside of the subject period. Asking the learners to remain for assistance after school, gives them the impression that that they are being punished. This breeds a negative attitude in the learners as they tend to lose self-confidence. They end up not willing to participate in extra lessons."* Wilson (2010) also noted that teachers preferred smaller classes to give attention to learners especially those with learning challenges.

4.2.8.7 Interpretation

A challenge that teachers face when teaching and supporting learners with dyslexia is that some of the dyslexics are slow and take a long time to understand given questions and they tend to forget answers to questions. To help them overcome such problems, it would be better if they were given permission to do open-book exams that allow a learner to bring a textbook of the subject being examined so that they can check their answers. It is not clear if this is permissible in public schools. While this idea can assist in the examinations, it can still come with its problems; for example, if a learner has not studied thoroughly, opening a book in an examination can confuse a learner.

One response was that some learners bunked support lessons. Some of the learners felt that they were regarded as slow learners who must undergo further teaching as others went home. Another challenge was to begin teaching basic reading at high school instead of doing it at primary school where the workload was not as heavy as at high school.

There is need for teachers to be trained in dealing with learners with dyslexia. The teachers need to have a variety of approaches in teaching and supporting dyslexics. Demonstration lessons could be provided on how to use equipment that can promote learning among such learners. Classrooms also need to be dyslexia-friendly for effective teaching and learning to take place.

4.3 CHAPTER SUMMARY

This chapter looked at data analysis and interpretation of the data collected for the study about the challenges that are faced by Senior Phase teachers of dyslexic learners at public schools. From what was unearthed as noted in the participants' responses, there is need for the school authorities as well as the relevant stakeholders to work together to ensure that the teachers receive the necessary support in teaching and supporting learners with dyslexia while simultaneously ensuring that no learner is left behind. Policies must be put in place, to ensure that no learners are deprived of their rights to education.

The following chapter consolidates the study and provides recommendations on how to address the challenges faced by teachers when teaching and supporting learners with dyslexia.

CHAPTER 5: DISCUSSION OF FINDINGS, RECOMMENDATIONS, AND CONCLUSION

5.1 INTRODUCTION

In Chapter 4, the researcher focused on the analysis of data and interpretation of the findings. An introductory remark was first presented, the participants' perceptions regarding the challenges they face when teaching learners with dyslexia were also addressed in this chapter.

In this chapter, the following aspects will be addressed: discussion of findings, conclusions and recommendations.

The research questions that were formulated in Chapter 1 of the study are presented below:

Main question:

What challenges are faced by teachers of dyslexic learners in the Senior Phase in public schools in Ekurhuleni District in Gauteng Province in South Africa?

The following were sub-questions:

- What is your understanding of dyslexia?

- How can you tell if a learner has dyslexia?

- What assessments are you using to determine if a learner has dyslexia?

- How can Senior Phase learners with dyslexia be supported?

- What challenges do you experience when teaching and supporting learners with dyslexia?

- What challenges do you experience when applying strategies to support learners with dyslexia?

5.2 OVERVIEW OF THE STUDY

This study aimed at identifying challenges that are faced by teachers of dyslexic learners at Senior Phase and finding ways of addressing the problems. The study will equip the education authorities in supporting the schools to come up with ways of addressing the problems.

Chapter 1 covered the introduction and the background of the study on challenges faced by teachers of dyslexic learners in public schools in Ekurhuleni District of South Africa in Gauteng. It included the rationale of the study, the statement of the problem, aims and objectives. The significance of the study was also discussed.

In Chapter 2, the theoretical framework and the literature review were covered. The social constructivist theory was discussed, and its significance was spelt out. The literature review focused on current literature as far as possible to show what the dyslexia is and what teachers understand dyslexia to be, how it can be assessed and what challenges they experience in dealing with the disability. It also touched on what other researchers have said about dyslexia including its definition, assessment, management as well as the challenges that are faced by teachers when teaching and supporting learners with dyslexia.

The research design and methodology were covered in Chapter 3. The research process that was followed for the study was explained. The qualitative research design was phenomenological. The collection of data using quester views with questions on a Google form as well as telephonic interviews was explained. The population and the sample techniques as components of the research methodology were covered in this chapter. Issues of trustworthiness were discussed. The ethical considerations of informed consent, confidentiality, anonymity and voluntary participation were addressed in detail.

Chapter 4 concentrated on the analysis of data that included participants' perceptions on challenges that were faced by teachers when teaching and supporting learners with dyslexia. In addition, data collected for the study was interpreted according to the participants' responses.

5.3 REVISITING THE RESEARCH QUESTIONS

In this study, the research questions were answered through the participants' responses and the literature review. The researcher sorted, categorised, and grouped elements into themes and sub-themes. The discussion of the findings is presented in two sections, namely, the biographical information the teachers' knowledge about dyslexia.

Chapter 4 presented the analysis and interpretation of the data that were collected for the study. This chapter consolidates the study and gives an outline of the discussion of the findings of the study, conclusions and recommendations on the challenges faced by teachers when teaching and supporting learners with dyslexia.

The recommendations can be beneficial to the DBE, policy makers, HODs, principals of the schools, those involved in designing curriculum for teacher trainees, parents, learners as well as in-service teachers.

5.4 DISCUSSION OF FINDINGS

The researcher understands the findings of a study to mean the totality of outcomes of a research project reached after conducting the investigation.

The study revealed several challenges that are faced by Senior Phase teachers when teaching and supporting learners with dyslexia. The sooner dyslexia is attended to the more favourable the outcome. According to Wade (2001), the responsibility of regular schools is to accommodate the diverse needs of all learners so that they become fully involved in the learning process. With the challenges that teachers face when teaching and supporting learners with learning disabilities such as dyslexia, it is sometimes difficult for the teachers to support the learners if they do not possess certain skills.

5.4.1 Definitions of Dyslexia

The findings revealed that almost every participant had their own definition of dyslexia. In responding to this question, four sub-themes were identified, namely, difficulty in reading and comprehending a text, difficulty with spelling and writing, and the inability to take instructions and sort numbers. This study revealed that while

some of the participants understood what dyslexia is, some seemed not to know much about this condition.

Most responses associated dyslexia with reading difficulties. It was evident that teaching and supporting learners presenting with such difficulties was a challenge to the teachers especially at Senior Phase where the workload for the learners had increased. The possibility is that lack of knowledge about dyslexia, can cause failure to address the issues that the learners with dyslexia present with. It is important to note that dyslexia is not due to a lack of intelligence or a lack of a desire to learn. The use of appropriate teaching methods can address the problem of dyslexia (www.dyslexiaida.org).

5.4.2 Signs of Dyslexia

Most of the participants were able to tell the signs of dyslexia though some associated it with failure to cooperate. It was found that learners were not committed enough to be assisted to learn, as some did not attend support lessons. Some tended to forget quickly what they had been taught. Even though a small percentage of the participants pointed out that learners with dyslexia were not cooperative or were lazy to do their work, a bigger percentage identified other signs of dyslexia that they had observed among some of the learners.

The findings about how one can tell if a learner has dyslexia pertained mainly to reading. This included poor development of vocabulary, inability to pronounce words correctly, neglecting punctuation marks and confusing or reversing letters. Also, it came to light that learners with dyslexia struggled to write and failed to copy from the board. In addition, they showed problems in following the correct sequence of days, month, and other numbers.

They also presented with poor organisational and time management skills. There is a possibility that some learners with dyslexia can be misinterpreted for something else, but it is necessary to be sure about what constitutes dyslexia rather than guessing or assuming, for example, that because a learner did not do classwork then that learner is lazy or uncooperative.

Some of the participants indicated that some of the learners were not comfortable reading aloud. Learners were said to have low self-esteem which perhaps calls for

the teachers to further diagnose what the problems could be; for example, the learners might be shy to perform activities before the class and not because they lacked confidence.

This study also found that a learner with dyslexia may be hyperactive and uninterested in participating in classwork. Hyperactivity can cause the learner not to pay attention to what is going on in class, thereby posing challenges to the teacher and other learners.

According to some participants it would be better if learners were attended to in special classes, though the EWP6 calls for inclusion which advocates for learner needs to be attended to, irrespective of their disabilities.

5.4.3 Assessments for Dyslexia

Pertaining to assessments that must be carried out to determine whether learners were dyslexic, it was indicated that a baseline assessment must be done. Learners must be assessed to ascertain their reading fluency. The findings showed that at least two of the participants were aware of standardised ways of assessing whether a learner had dyslexia. These included the Comprehensive Test of Phonological Processing -2 CTOPPP-2, GSRT, Rapid Automatic Naming or Rapid Automatic Stimulus.

Several participants were able to give suggestions as to how they could test whether learners had dyslexia. Literature suggests that teachers need to be aware of the criteria that they can use to identify and assess learners who are suspected to have this learning disability. This would enable them to meet the needs of dyslexics (Reid, 2013).

Also, there were suggestions about including specialists to test learners for dyslexia. It was also indicated that teachers could provide reading tests, then ask comprehension questions to check if the learners were able to answer them with understanding. Auditory and visual assessments of learners were other suggestions given. While it is good to engage specialists in testing learners for dyslexia, the teachers need to be equipped in testing learners for dyslexia.

5.4.4 Intervention Strategies

It was noted that some of the participants had ideas about intervention strategies that could be used to teach and support learners with dyslexia. Individual learner assistance was mentioned more than once. Extra time and extra classes also were noted to be very fruitful in assisting dyslexics. It was also noted that learners need to be trained in phoneme awareness. Applying to the DBE for concessions for accommodation during examinations was noted to be helpful by some of the participants. Some of the participants indicated that there were delays or no approval of concessions from the DBE. This response might not be true considering that the DBE supports the idea of supporting learners during examination time by ensuring that the deserving learners get extra time to compete examinations.

Lack of support from stakeholders was mentioned as a challenge that teachers face when teaching and supporting learners with dyslexia. This means that supporting learners with special needs should be an issue addressed by all that are concerned with education such as parents and guardians, school and education authorities and should not only be left to the teachers.

Other participants mentioned the need to involve parents when assisting learners with dyslexia. It is not all the parents that are educated and understand the kind of homework and assignments and projects that the learners are tasked to do. Learners might not fully accept that the support they get from their parents or guardians is appropriate depending on how academically qualified they are. Some parents might feel as if the teachers are shifting their teaching work to them.

Learners with dyslexia might lack appropriate systematic support beyond the classroom. This might be true in that if a learner fails to follow what is going on in class, it can become difficult for a parent or guardian who is not even trained to teach to try and assist such a learner with homework. There can be little, or no support given at home. Sometimes a parent or guardian might not be having adequate time to assist a learner with homework maybe because of work commitments. Alawadh (2016) noted that parental involvement is a vital element of effective developmental intervention, so if parents are uncooperative in supporting their children who present with learning difficulties it can be a strain to the teachers.

One of the responses indicated that it is difficult to teach basic reading at high school as this is something that is expected to be done at primary school maybe because at high school there is too much workload for learners than at primary school. Poor reading skills affect the way technical subjects are done if a learner has reading difficulties. The learner is likely to fail to follow instructions to do a given activity.

5.4.5 Lack of Appropriate Equipment

Learners with hearing, visual and other learning problems did not have the appropriate equipment to promote their learning. It was also indicated that learners with dyslexia struggle to read what they have written.

Inadequate resources to cater for dyslexics were also mentioned as a challenge that is faced by teachers of learners with dyslexia. Even if the teacher is willing to teach and support learners with different needs, it was difficult if there were few or no resources. Some of the responses pointed out that poor reading materials were supplied, making it difficult to use them with learners with dyslexia.

Class size was one of the things that was highlighted as a challenge that teachers face when dealing with dyslexics. Classes, which are too big, were difficult to manage as the teacher was expected to pay attention to the individual needs of the learners. At the same time, the teacher would have a lot of marking to do, adding to other responsibilities of lesson preparation, teaching, and supporting learners with learning difficulties.

It was revealed that teachers faced a challenge with assessment deadlines that put a lot of pressure on them, which shortened teaching and support time. Too much paperwork was another problem that was highlighted. There were so many records to be completed and these reduced contact time. It was also noted that teaching learners with dyslexia was time-consuming as the teacher was expected to attend to everyone's learning needs. In large classes, this was almost impossible.

Some of the participants highlighted that the classrooms were not conducive to learning. While Monyai et al. (2019) acknowledged the effectiveness of inclusive classrooms, their call for a collaborative effort by teachers as well as supporting staff by ensuring thorough lesson preparation was also mentioned. Students with

disabilities require various accommodations to support and to improve skills such as reading (Chernek, 2016).

Another finding was that delaying or denying a learner an opportunity to be tested by a specialist such a psychologist could deny the struggling learner a chance to get appropriate support or accommodations according to their cognitive potential as they continued learning within the mainstream. It was interesting to note that some of the participants expressed the need to allow learners with learning difficulties to use readers or textbook in examinations.

5.4.6 Lack of Specialised Skills

From the responses given, some of the participants faced challenges of addressing barriers to learning as they had no special skills on how to support learners with learning challenges. It was more challenging at Senior Phase to address learning challenges such as dyslexia as the learners had more demanding work to do than in the lower phases. Spaull and Kotzé (2015) agreed with the challenges raised by some of the participants by pointing out that it was difficult to overcome learning problems that had been left unattended for a long time.

The findings indicate that teachers lack the experience on how to use equipment that are designed to help learners with dyslexia, and this includes the Braille equipment. which is necessary for addressing visual problems of learners.

The other challenge that teachers experienced when trying to apply strategies in supporting dyslexics was that while the teachers sought help from some of the school authorities, they discovered that they could not support them, as they too lacked knowledge on how to deal with dyslexics. Lack of training by teachers to handle dyslexics was indicated as a problem.

There were responses that showed that some of the participants did not receive special education training. In a telephonic follow up with two participants, they indicated that they relied on Google to learn more on how to deal with learners with special educational needs though they were not clear as to whether this information was of use or not. They used trial-and-error methods.

One participant indicated that she was unable to tell if the learners had learning disabilities or were simply misbehaving. This could be contributing to the challenges that they faced when teaching and supporting learners with dyslexia. There is a need for ongoing staff development in dealing with learners with dyslexia. Reid (2013) noted that policies on dyslexia should be designed so that teachers are equipped with better ways of dealing with learners with dyslexia.

5.4.7 Lack of Stakeholder Support

Some respondents stated that there was some lack of support by some school authorities when teaching learners with dyslexia. This was noted in a response that stated that the schools did not arrange workshops for the teachers to address matters related to teaching and supporting learners with special educational needs.

It was also highlighted that the learners seemed not to get support beyond the classroom. This suggested that the learners might be lacking support at home when doing homework and other assignments and projects. Reid (2013) supported this view by stating that the responsibility of assisting learners with dyslexia must be shared by the school management team, professionals, parents as well as other stakeholders. This cannot always be easy for teachers as they are faced with making parents accept and understand that their children had a disability. Involving parents at the early stages of intervention of learners with dyslexia builds trust between teachers and parents (Peterson & Pennington, 2015).

5.5 LIMITATIONS OF THE STUDY

Leedy & Ormrod (2013) view those characteristics of a design or methodology that impact or influence the interpretation of a study as limitations because the researcher has no control over them. Limitations can be framed through looking at content, tools, research methodology and others. In this study, the researcher's aim was to explore the challenges faced by teachers when teaching learners with dyslexia.

As the study begun, the researcher was not aware that two years down the line there was going to be the deadly disease Covid-19. The pandemic brought about serious challenges in the way the study was conducted, as it limited the use of certain data collection techniques such as observation as close contact with the participants was

not allowed. Some of them were not at school as it was at the start of Covid-19 and the regulations did not permit visitors into the school premises.

In addition, the researcher hoped to check and make notes from the learners' exercise books to identify signs of dyslexia. This was going to help the researcher to determine whether learners followed instructions when carrying out activities. The researcher would tell if the learners were, for example, able to do word sums. Visual Arts activities such as drawing were going to inform the researcher, as to whether the teacher was able to detect what the learners' problems could be; for example, visual problems, failure to read given instructions or copy work from the board properly.

The researcher had planned to check the remedial and support records to establish how the teachers supported learners with dyslexia. Failure to apply correct intervention strategies could also be contributing to their frustrations. Some of the information was to be obtained through lesson observations that included drama, dance, and physical education. The researcher was going to determine the triggers of the challenges that teachers face when teaching dyslexic learners. This did not take place because of Covid 19 rules that the researcher had to observe.

The researcher intended to review learners' texts to identify the mistakes that they made in writing, spelling and finding answers to story sums, check reading and assessment records as well as support plans and remedial records but Covid-19 regulations did not permit physical interactions.

Though the researcher wished to use other data collection instruments, it became difficult for her as face-to-face interviews could not take place because of Covid-19 regulations that emphasised social distancing and discouraged visits to other peoples' premises and even to schools.

There was limited time to conduct this research as the researcher took a lot of time trying to secure the schools to use for the study and willing participants for the study. It became a challenge for the researcher to use the telephonic method of data collection as planned, as most of the participants were no willing to share their contact details. This study could have supplied more knowledge on the challenges that the participants faced when teaching and supporting learners with dyslexia if the

researcher had had the opportunity to probe further through the telephonic interviews had the participants agreed to do the interviews telephonically. Only two participants called the researcher for clarity on some questions. The researcher had the opportunity to ask for more information with these two participants.

One school that the researcher intended to use was no longer used for the study. The principal of School 1 said that the teachers were busy with assessments and were not able to be part of the study. In addition, she indicated that Covid-19 regulations did not permit the researcher to physically enter the school premises to conduct the study. The principal of the second school said that there were no learners with dyslexia at her school. She added that there were two learners that the school suspected to have dyslexia but, after being tested by the district, they were said not to have dyslexia.

Some of the teachers from one of the schools that was used for the study raised concerns about money for data access that they needed in order to respond to the quester view. The researcher had not indicated in the research proposal that such resources would be provided to the participants.

The researcher started all over again to find two schools in place of the two that denied her access. The two schools were in the Ekurhuleni South District in addition to one in Ekurhuleni North district. The findings for this study cannot be generalised to all the Senior Phase teachers in Ekurhuleni District as it only focused on three high schools in the district. The data reflected the views and opinions of the individual participants, which was prone to be subjective.

5.6 CONCLUSIONS

This chapter included a discussion about findings and made recommendations based on the research that aimed at answering the question on the challenges that are faced by teachers of dyslexic learners in the Senior Phase. The recommendations made here will inform the DBE, the SMTs, the designers of teacher training programmes and teachers on strategies that can be used to support dyslexic learners. The aim is to ensure that the teachers themselves are fully supported to teach and support learners with dyslexia. By so doing, every child's right to education will be observed.

Attending to problems at grassroots level, such as educating teachers about approaches to deal with learners with special educational needs, will help teachers to plan lessons that will ensure that no learner is left behind. Training every teacher with the relevant skills to cater for individual learning differences will motivate them to support learners thereby closing all gaps as the learners move from one grade to another. Teachers will experience fewer challenges if all that are concerned with education do their part.

Understanding the bioecological and the social constructivist theories that were used for this study can equip the teachers in understanding how the environment of the learners has an impact on them. That impact can also affect the teachers either negatively or positively. In this study, teachers may have found themselves faced with learners because their learning problems are not adequately addressed, causing them to feel that they are being ignored. At the same time, the teachers may notice that they are not giving learners adequate attention and support according to their needs, thereby resulting in frustration.

The social constructivist theoretical framework promotes production of reconstructed understandings of the social world. Authenticity and trustworthiness are the traditional criteria and transactional knowledge is valued (Miller, 2018).

Finally, this research serves as a voice for teachers who face challenges when teaching and supporting learners with dyslexia and have limited or no means of supporting them.

5.7 RECOMMENDATIONS

The researcher understands recommendations to mean suggestions or proposals that are put forward to ensure the success of the research. In this study, the recommendations area addressed to the DBE, designers of teacher training curricula, such as the SMTs, heads of departments, parents and the teachers to ensure that they are equipped with ways of dealing with dyslexics, with limited or no challenges that can negatively impact on the teaching and the learning process.

5.7.1 Recommendations for the Department of Basic Education

The DBE needs to ensure that:

- There is ongoing staff development in dealing with learners with dyslexia. Ongoing workshops should be organised to boost the teacher's knowledge on dealing with learners with special educational needs such as dyslexia. Irrespective of the number of years of teaching experience, teachers need constant development as education is dynamic.

- Each school must have an SBST that will quickly assess learners for dyslexia. This can be done as baseline assessment on admission of learners to high schools so that issues are addressed as early as possible.

- Appropriate resources should be supplied; for example, using the correct font and colour of paper depending on the learners' individual needs coupled with constant evaluation on the progress about teaching and support dyslexics.

- The schools must be provided with relevant and adequate equipment and other resources such as tablets or Chromebooks so that the classrooms have dyslexia-friendly standards.

- Teachers need to be trained in using the equipment that is designed for learners with hearing and visual problems as well as other equipment related to assisting learners with dyslexia.

- Support teachers need to be employed so that together with the subject teachers they can conduct baseline assessment, plan intervention strategies or referrals (Daud, 2019). This will also ease pressure and workload on the teachers.

- The learners' profiles need to be moved from primary to high schools for continuity in supporting learners with special needs.

- Education policies should not leave out content or programmes that pertain to learners with dyslexia. Policies on dyslexia should be designed; they can be translated into a set of practice guidelines as a way of assisting teachers understand ways of dealing with dyslexics. They should spell out the kind of training that teachers should receive so that they can deal with dyslexics. Assessment methods used should form part of these policies (Alawadh, 2016).

5.7.2 Recommendations for the Designers of Teacher Training Curricula

The designers of the teacher training curriculum need to ensure that:

- The needs of the learners with dyslexia should be addressed through redesigning training undergraduate and postgraduate teachers to ensure that dyslexia and other specific learning difficulties are considered (Reid, 2013).

- The syllabus for teacher training includes the content about the basics of special education, so that teachers can teach learners with dyslexia and other learning disorders. Carton & Fruchart (2013) supported the need for teachers to be trained in special education by stating that inability to apply appropriate intervention strategies to address problems with dyslexia could prevent some of the teachers from giving support on things that they do not understand.

- Student teachers need to get adequate teaching practice under the supervision of their mentors at the schools and, of course, their supervisors from the training colleges.

- Student teachers to be taught how to teach reading with its various concepts such as punctuation, pronunciation, fluency and others.

- Teacher training incorporates inclusivity so that learners with learning problems can be assisted in the mainstream without having to place them at special schools. Mji & Makgato (2006) pointed out that if teachers lack knowledge on inclusive education the learners, they teach are likely to underperform as they are regarded as under-qualified or unqualified at all.

- Teacher training curricula are constantly reviewed so that they are kept up to date with the current needs of learners**.**

- Teachers are equipped with modern ways of teaching, for example, online teaching and the use of computers and Chromebooks instead of writing on the chalkboard and reading from a textbook as these traditional ways of teaching become monotonous to the learners.

- Teacher training programmes as well as the curriculum for both primary and secondary schools incorporate topics that cover dealing with learners with special

educational needs. This should be for both primary and secondary school teachers of all the subjects.

- The teacher training syllabuses include inclusive education**.**

- Teacher training of both teachers that teach academic and or technical subjects incorporate skills that will equip them with knowledge and skills that will allow them to handle learners with learning difficulties that include dyslexia.

5.7.3 Recommendations for Principals of Schools and Heads of Departments

The principals and the heads of departments need to:

- Organise training that will assist teachers in preparing lessons for learners with special educational needs. Daud (2019) viewed lesson planning as the most important aspect in addressing barriers to learning.

- Develop policies at school level pertaining to dealing with learners who have dyslexia and other learning difficulties. By so doing, the teachers will understand what dyslexia is and be able to handle learners with this disability.

- Encourage teachers to assess learners for dyslexia, and constantly give feedback on their progress.

- Encourage teachers to spell out challenges they are experiencing when dealing with dyslexics, so that they are addressed immediately.

- Ensure that there is teamwork in supporting learners with dyslexia so that it does not become a burden for some individuals or subject teachers.

- Assist teachers in creating dyslexia-friendly classrooms by sourcing the materials and resources that assist in the teaching and learning process.

- Together with the SBSTs, facilitate the referrals of learners suspected to have dyslexia to specialists such as psychologists.

- Supervise and support teachers in teaching basic skills such as reading. This kind of support will go a long way to reducing reading problems in the Senior Phase.

- Encourage school-based collaborative planning. By so doing, teachers will work together to identify learners with dyslexia and other learning difficulties to devise ways of supporting such learners (Venter, 2015).

- Address the issue of workload. Besides teaching, teachers are involved in other activities that include co-curricular and extra-curricular.

- Motivate the SGBs to employ teachers so that the issue of learner-teacher ratio is addressed by ensuring that teachers have reasonable and manageable numbers of learners per class.

- Manage parents' expectations as some fail to accept that their children have learning difficulties that can cause them to fail, or not follow the career path that they are planning for.

- Thorough teaching of writing and reading at primary school, curb the problems that are faced by the Senior Phase teachers where they find themselves having to mark illegible work.

- Apply to the DBE for equipment such as spell checkers, mind mapping software, text-to-speech software, tablets, smartphones and others to mention a few (www.dyslexia.uk.net). Not all families can afford to buy such equipment for their children. If the department gives support in this regard, learners will receive education irrespective of their disabilities.

- Organise termly learner reviews with subject teachers, school psychologists, and heads of departments to monitor learner progress.

- Organise parents' meetings to discuss learner progress and what can be done to assist learners with dyslexia.

- Support the schools by donating equipment such as Chromebooks, laptops, hearing aids, Braille and all the other equipment that can assist learners with dyslexia. Using Chromebooks for writing will make the written work legible thereby reducing the stress that teachers face in marking illegible work.

5.7.4 Recommendations for Parents

Parents need to:

- Ensure that they attend parents' meetings that are organised by the school about their children's progress.

- Accept that their children might have learning disabilities. That does not mean that they are dull, but they may need additional support.

- Understand that if the child has dyslexia, they are not stupid and may well have other talents that do not require reading. There are some skills that one has that can lead to success in life; for example, sporting skills can earn a person a living.

- Check the homework diary to see if their children have homework and encourage them to do it.

- Ensure that their children attend support lessons offered by their teachers and seek clarity if need be.

5.7.5 Recommendations for Teachers

Teachers need to

- Be aware of the criteria that they can use to identify and assess learners who are suspected to be having this learning disability. This will enable them to meet the needs of dyslexics. This responsibility must be shared by the SMT, professionals, parents as well as other stakeholders.

- Train learners in the use of the equipment to avoid difficulties that might have in using the equipment. Teachers need to identify learners with dyslexia at an early stage so that they address their reading problems without delay. They need to devise intervention strategies so that reading progress is in the higher grades is not affected.

- Make parents aware of their children's learning problems as early as possible to gain trust in the parents. The teachers also need to ask the parents to remind the learners to do their homework and even assist them if they can. However, time can be a challenge for parents depending on their working arrangements.

- Make use of a "study buddy" system. According to Daud (2019), this helps in accommodating those learners who seldom complete their work.

- Promote peer teaching, as some learners might understand certain concepts when they are explained by their peers while some of the learners in a class are dyslexic, others are not.

- Include collaborative learning to allow learners to benefit from each other (DBE, 2010). In addition, use of various equipment such as audio recorders and laptops can motivate learners to learn, thereby easing the stress on the teachers who could sometimes struggle to motivate learners to learn.

- Make other learners understand that learners with dyslexia have some concepts that they struggle with, but they can still do well with others.

- Explain to parents what dyslexia is, using simple terms as defined by Bornman & Rose (2010) who stated that dyslexia is a condition that may run in families which pertains to genetic, environment and other factors and make it difficult to read, write or spell in an individual's first language despite having average intelligence. The explanations will help the parents to understand that their children are not dull but may not understand certain concepts.

- Help students develop organisational skills.

- Ensure that learners are aware of the homework that they must do and make copies of the homework for the learners so that they do not copy it from the board wrongly, especially those learners with writing problems.

- Give clear instructions for homework and encourage parents to check if their children have homework.

5.8 SUGGESTIONS FOR FUTURE RESEARCH

For future research, a quantitative study across a wider range of schools could be carried out.

There is also a need to explore the interventions suggested by participants in dealing with learners with dyslexia.

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APPENDICES

APPENDIX A: ETHICAL CLEARANCE

UNISA | university of south africa

UNISA COLLEGE OF EDUCATION ETHICS REVIEW COMMITTEE

Date: 2020/08/12

Ref: **2020/08/12/43477429/18/AM**

Name: Mrs S Thebe

Student No.:43477429

Dear Mrs S Thebe

Decision: Ethics Approval from 2020/08/12 to 2023/08/12

Researcher(s): Name: Mrs S Thebe
E-mail address: Sifanele.thebe@gmail.com
Telephone: 0721065124

Supervisor(s): Name: Dr. RB Monyai
E-mail address: monyairb@unisa.ac.za
Telephone: 012 484 1173

Title of research:

Challenges Faced by Teachers of Dyslexic Learners in Public Schools in the Senior Phase at Ekurhuleni District In Gauteng Province in South Africa.

Qualification: MEd Inclusive Education

_____

Thank you for the application for research ethics clearance by the UNISA College of Education Ethics Review Committee for the above mentioned research. Ethics approval is granted for the period 2020/08/12 to 2023/08/12.

The **medium risk** application was reviewed by the Ethics Review Committee on 2020/08/12 in compliance with the UNISA Policy on Research Ethics and the Standard Operating Procedure on Research Ethics Risk Assessment.

The proposed research may now commence with the provisions that:

1. The researcher will ensure that the research project adheres to the relevant guidelines set out in the Unisa Covid-19 position statement on research ethics attached.
2. The researcher(s) will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.

University of South Africa
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150
www.unisa.ac.za

3. Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study should be communicated in writing to the UNISA College of Education Ethics Review Committee.

4. The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.

5. Any changes that can affect the study-related risks for the research participants, particularly in terms of assurances made with regards to the protection of participants' privacy and the confidentiality of the data, should be reported to the Committee in writing.

6. The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study. Adherence to the following South African legislation is important, if applicable: Protection of Personal Information Act, no 4 of 2013; Children's act no 38 of 2005 and the National Health Act, no 61 of 2003.

7. Only de-identified research data may be used for secondary research purposes in future on condition that the research objectives are similar to those of the original research. Secondary use of identifiable human research data requires additional ethics clearance.

8. No field work activities may continue after the expiry date **2023/08/12**. Submission of a completed research ethics progress report will constitute an application for renewal of Ethics Research Committee approval.

Note:

The reference number **2020/08/12/43477429/18/AM** should be clearly indicated on all forms of communication with the intended research participants, as well as with the Committee.

Kind regards,

Prof AT Motlhabane
CHAIRPERSON: CEDU RERC
motlhat@unisa.ac.za

Prof PM Sebate
EXECUTIVE DEAN
Sebatpm@unisa.ac.za

APPENDIX B: PERMISSION TO CONDUCT RESEARCH: GDE

GAUTENG PROVINCE
Department: Education
REPUBLIC OF SOUTH AFRICA

	8/4/4/1/2

GDE RESEARCH APPROVAL LETTER

Date:	13 October 2020
Validity of Research Approval:	08 February 2021 – 30 September 2021
	2019/603 A
Name of Researcher:	Thebe S
Address of Researcher:	344 Henley on Klip
	Meyerton
Telephone Number:	0721065124
Email address:	Sifanele.thebe@gmail.com
Research Topic:	Challenges Faced by Teachers of Dyslexic learners in Public Schools in the Senior Phase at Ekurhuleni District in Gauteng Province in South Africa
Type of qualification	Master's in Education
Number and type of schools:	3 Secondary School
District/s/HO	Ekurhuleni North , Ekurhuleni South

Re: Approval in Respect of Request to Conduct Research

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

13/10/2020

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

1. Letter that would indicate that the said researcher/s has/have been granted permission from the Gauteng Department of Education to conduct the research study.

1

Making education a societal priority

Office of the Director: Education Research and Knowledge Management
7th Floor, 17 Simmonds Street, Johannesburg, 2001
Tel: (011) 355 0488
Email: Faith.Tshabalala@gauteng.gov.za
Website: www.education.gpg.gov.za

1. Letter that would indicate that the said researcher/s has/have been granted permission from the Gauteng Department of Education to conduct the research study.
2. The District/Head Office Senior Manager/s must be approached separately, and in writing, for permission to involve District/Head Office Officials in the project.
3. Because of COVID 19 pandemic researchers can ONLY collect data online, telephonically or may make arrangements for Zoom with the school Principal. Requests for such arrangements should be submitted to the GDE Education Research and Knowledge Management directorate. The approval letter will then indicate the type of arrangements that have been made with the school.
4. The Researchers are advised to make arrangements with the schools via Fax, email or telephonically with the Principal.
5. A copy of this letter must be forwarded to the school principal and the chairperson of the School Governing Body (SGB) that would indicate that the researcher/s have been granted permission from the Gauteng Department of Education to conduct the research study.
6. A letter / document that outline the purpose of the research and the anticipated outcomes of such research must be made available to the principals, SGBs and District/Head Office Senior Managers of the schools and districts/offices concerned, respectively.
7. The Researcher will make every effort obtain the goodwill and co-operation of all the GDE officials, principals, and chairpersons of the SGBs, teachers and learners involved. Persons who offer their co-operation will not receive additional remuneration from the Department while those that opt not to participate will not be penalised in any way.
8. Research may only be conducted after school hours so that the normal school programme is not interrupted. The Principal (if at a school) and/or Director (if at a district/head office) must be consulted about an appropriate time when the researcher/s may carry out their research at the sites that they manage.
9. Research may only commence from the second week of February and must be concluded before the beginning of the last quarter of the academic year. If incomplete, an amended Research Approval letter may be requested to conduct research in the following year.
10. Items 6 and 7 will not apply to any research effort being undertaken on behalf of the GDE. Such research will have been commissioned and be paid for by the Gauteng Department of Education.
11. It is the researcher's responsibility to obtain written parental consent of all learners that are expected to participate in the study.
12. The researcher is responsible for supplying and utilising his/her own research resources, such as stationery, photocopies, transport, faxes and telephones and should not depend on the goodwill of the institutions and/or the offices visited for supplying such resources.
13. The names of the GDE officials, schools, principals, parents, teachers and learners that participate in the study may not appear in the research report without the written consent of each of these individuals and/or organisations.
14. On completion of the study the researcher/s must supply the Director: Knowledge Management & Research with one Hard Cover bound and an electronic copy of the research.
15. The researcher may be expected to provide short presentations on the purpose, findings and recommendations of his/her research to both GDE officials and the schools concerned.
16. Should the researcher have been involved with research at a school and/or a district/head office level, the Director concerned must also be supplied with a brief summary of the purpose, findings and recommendations of the research study.

The Gauteng Department of Education wishes you well in this important undertaking and looks forward to examining the findings of your research study.

Kind regards

Mr Gumani Mukatuni
Acting CES: Education Research and Knowledge Management

DATE: *13/10/2020*

2

Making education a societal priority

Office of the Director: Education Research and Knowledge Management
7th Floor, 17 Simmonds Street, Johannesburg, 2001
Tel: (011) 355 0488
Email: Faith.Tshabalala@gauteng.gov.za
Website: www.education.gpg.gov.za

APPENDIX C: PERMISSION TO CONDUCT RESEARCH: PRINCIPALS

Ref: 2020/08/12/43477429/18/AM

PO BOX 392

UNISA

0003

RESEARCH PROJECT: **Challenges Faced by Teachers of Dyslexic Learners in Public Schools in the Senior Phase at Ekurhuleni District in Gauteng Province in South Africa.**

DATE: 30/03/21_____

Dear Principal

I, Mrs Sifanele Thebe am doing research under the supervision of Dr Reginald Monyai, a senior lecturer in the Department of Education towards a Master's degree in Education at The University of South Africa. We are inviting you to participate in a study entitled: Challenges Faced by Teachers of Dyslexic Learners in Public Schools in the Senior Phase at Ekurhuleni District in Gauteng Province in South Africa.

The aim of the study is to establish the challenges faced by the Senior Phase teachers when teaching dyslexic learners so as to come up with strategies to support them. Your school has been selected because it is nearer to my home and it will be easier for me to get there when the need arises.

Written interview questions as well as telephonic interviews will be used to gather data for the study. The benefits of this study are to come up with intervention strategies to support both the learners and the teachers. It will also clear the misconceptions that the teachers, parents, and other caregivers have about dyslexics. The education Authorities will come up with ways of equipping teachers with the relevant skills for dealing with dyslexics.

There are no potential risks involved and there will be no reimbursements or incentives for participation in the research. Feedback will be an email showing all findings and quotes from my research to the respective participants.

You are welcome to contact the module coordinator, Dr .R Monyai at 072 209 6695 or monyarb@unisa.com if you require more information.

YOURS FAITHFULLY

Sifanele Thebe   Student number: 43477429   (Researcher)

Mr / Ms MoFOKENG B.M. _____ [PRINT] Signature _____

Principal/ Head of Academy

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PO BOX 392

UNISA

0003

RESEARCH PROJECT: **Challenges Faced by Teachers of Dyslexic Learners in Public Schools in the Senior Phase at Ekurhuleni District in Gauteng Province in South Africa.**
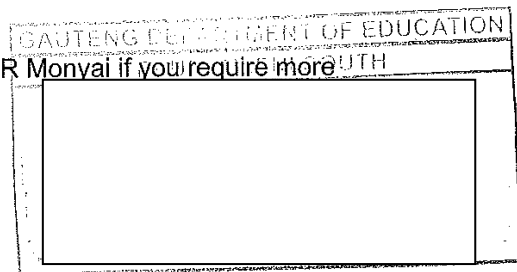
DATE: _31 - 03 - 2021_

Dear _Mrs. S. L_____.

I, Mrs Sifanele Thebe am doing research under the supervision of Dr Reginald Monyai, a senior lecturer in the Department of Education towards a Master's degree in Education at The University of South Africa. We are inviting you to participate in a study entitled: Challenges Faced by Teachers of Dyslexic Learners in Public Schools in the Senior Phase at Ekurhuleni District in Gauteng Province in South Africa.

The aim of the study is to establish the challenges faced by the Senior Phase teachers when teaching dyslexic learners so as to come up with strategies to support them. Your school has been selected because it is nearer to my home and it will be easier for me to get there when the need arises.

A web based questionnaire will be used to gather data for the study. The benefits of this study are to come up with intervention strategies to support both the learners and the teachers. It will also clear the misconceptions that the teachers, parents, and other caregivers have about dyslexics. The education Authorities will come up with ways of equipping teachers with the relevant skills for dealing with dyslexics.

There are no potential risks involved and there will be no reimbursements or incentives for participation in the research. Feedback will be an email showing all findings and quotes from my research to the respective participants.

You are welcome to contact the module coordinator, Dr R Monyai if you require more information

GAUTENG DEPARTMENT OF EDUCATION

PO BOX 392

UNISA

0003

RESEARCH PROJECT: **Challenges Faced by Teachers of Dyslexic Learners in Public Schools in the Senior Phase at Ekurhuleni District in Gauteng Province in South Africa.**

DATE: 30/03/21_____

Dear Principal

I, Mrs Sifanele Thebe am doing research under the supervision of Dr Reginald Monyai, a senior lecturer in the Department of Education towards a Master's degree in Éducation at The University of South Africa. We are inviting you to participate in a study entitled: Challenges Faced by Teachers of Dyslexic Learners in Public Schools in the Senior Phase at Ekurhuleni District in Gauteng Province in South Africa.

The aim of the study is to establish the challenges faced by the Senior Phase teachers when teaching dyslexic learners so as to come up with strategies to support them. Your school has been selected because it is nearer to my home and it will be easier for me to get there when the need arises.

Written interview questions as well as telephonic interviews will be used to gather data for the study. The benefits of this study are to come up with intervention strategies to support both the learners and the teachers. It will also clear the misconceptions that the teachers, parents, and other caregivers have about dyslexics. The education Authorities will come up with ways of equipping teachers with the relevant skills for dealing with dyslexics.

There are no potential risks involved and there will be no reimbursements or incentives for participation in the research. Feedback will be an email showing all findings and quotes from my research to the respective participants.
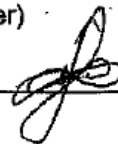
You are welcome to contact the module coordinator, Dr .R Monyai at 072 209 6695 or monyarb@unisa.com if you require more information.

YOURS FAITHFULLY

Sifanele Thebe   Student number: 43477429 (Researcher)

Mr / Ms____[   ]___ [PRINT] Signature_____

Principal/ Head of Academy

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APPENDIX D: INFORMED CONSENT

Ref: 2020/08/12/43477429/18/AM

PO BOX 392

UNISA

0003

RESEARCH PROJECT: **Challenges Faced by Teachers Who Teach Learners with Dyslexia in Public Schools in the Senior Phase at Ekurhuleni District in Gauteng Province in South Africa.**

DATE: _____

Dear_____

I, Sifanele Thebe am doing research towards a Master's degree in Education at The University of South Africa. I am inviting you to participate in a study entitled: **Challenges Faced by Teachers Who Teach Learners with Dyslexia in Public Schools in the Senior Phase at Ekurhuleni District in Gauteng Province in South Africa.**

The aim of the study is to establish the challenges faced by the Senior Phase teachers when teaching dyslexic learners to come up with strategies to support them. Your school has been selected for the study. My study seeks to collect information from schools that offer technical subjects and those that offer academic subjects as the teachers are regarded as being information rich.

A Google form will be used to gather data for the study. The benefits of this study are to come up with intervention strategies to support the teachers that teach and support learners with dyslexia. It will also clear the misconceptions that the teachers, parents, and other caregivers have about dyslexics. The education authorities will come up with ways of equipping teachers with the relevant skills for dealing with dyslexics.

There are no potential risks involved and there will be no reimbursements or incentives for participation in the research. I promise that the information supplied will be used for research purposes only. The information will be strictly confidential

YOURS FAITHFULLY

Sifanele Thebe STUDENT NUMBER: 43477429 Researcher

Mr / Ms _____ [PRINT] SIGNATURE_____

Principal/ Head of Academy

CONSENT FORM AND PARTICIPANT INFORMATION

PO BOX 392

UNISA

0003

<u>**Ref: 2020/08/12/43477429/18/AM**</u>

Dear Prospective Participant

Date: **02/02/2021**

My name is Sifanele Thebe. I am doing research under the supervision of We are inviting you to participate in a study entitled**: Challenges Faced by Teachers of Dyslexic Learners in Public Schools in the Senior Phase at Ekurhuleni District in Gauteng Province in South Africa.**

Purpose of the Study

The study is expected to collect information that could assist in devising strategies that can be used in assisting teachers in teaching and supporting learners with dyslexia.

Reason for invitation

You are being invited because you can share knowledge on dyslexia, your experiences on teaching and supporting learners with dyslexia as well as the challenges you face in dealing with dyslexics.

I intend to use Grade 8 and 9 teachers to gain information for my study.

Nature of my participation in this research study

The study involves responding to questions on a Google form which can take about 30 minutes to complete. The link where the Google form is will be shared with the school principal. In addition, there will be telephone interviews to follow up on some of the questions if you are willing to share your contact details.

Obligation

Participation in this study is voluntary and you are under no obligation to consent to participation. If you decide to take part, you will be given this information sheet to keep and be asked to sign written consent. You are free to withdraw at any time and without giving any reason.

The potential benefits of participating

The benefits of this study are to equip teachers with the necessary strategies and skills to teach and support learners with dyslexia. This will ensure that no learner is left behind.

Potential risks or inconveniences

This research study requires your time and attention to respond to the questionnaire.

There are no potential risks involved as all the participants are guaranteed anonymity. Your name will not be recorded anywhere, and no one will be able to connect you to the answers. All information supplied will kept strictly confidential and will only be accessed by the researcher.

Guarantee of Anonymity/Privacy of identification

All the data supplied by you will be anonymous and will be used to complete this research study as well be used for journal articles, conference proceeding or even as information on the internet. This research study may be submitted for publication, but no individual participants will be identifiable, in other words all the identities of the participant will be always kept confidential.

Electronic information of the information you have given me will be stored on my computer, which is only for the researcher's use, under a password. Future use of the stored data will be subject to further Research Ethics Review and approval if applicable. The information will only be destroyed once the research study has been completed, submitted and accepted. All hardcopies if any, will be shredded and then disposed, and permanently deleted from the devices used using the relevant software.

Rewards/Incentives

There are no payments or rewards for participation in this research as participation is voluntary.

Ethical approval of the study

This study has received written approval from the Research Ethics Review Committee of the University of South Africa. A copy of the approval letter can be obtained from the researcher if you wish.

Access of information of the findings of the research

If you would like to be informed of the final research findings, please contact Sifanele Thebe on 072 1065124 or email me at [Sifanele.thebe@gmail.com.](mailto:Sifanele.thebe@gmail.com) The findings will only be accessible four months after completion of data collection.

Should you have concerns about the way in which the research has been conducted, you may contact Dr Reginald Monyai at 0722096695 or email him at Monyai, Reginald monyarb@unisa.ac.za

Thank you for taking the time to read this information sheet and a hearty thank you for participating in this study.

Thank you!

Sifanele Thebe

CONSENT TO PARTICIPATE IN THIS STUDY

I, _____, confirm that the person asking my consent to take part in this research has told me about the nature, procedure, potential benefits and anticipated inconveniences of participation.

Please tick or initial all the blocks below after reading and accepting to acknowledge acceptance:

□ I have read or □ had it explained to me and understand study as it is explained in the information sheet.

□I had sufficient opportunity to ask questions and am prepared to participate in the study.

□I understand that my participation is voluntary and that I am free to withdraw at any time without penalty.

□I am aware that the findings of this study will be processed into a research report, journal publications and/or conference proceedings, but that my participation will be kept confidential unless otherwise specified.

□I have received and signed a copy of the informed consent agreement.

<u>PARTICIPANT:</u>

Name   and   Surname:

_____

Participant's signature: _____

GOOGLE FORM

PO BOX 392

UNISA

0003

Ref: 2020/08/12/43477429/18/AM

Link for the research Google form on: Challenges faced by Senior Phase Teachers of Dyslexic Learners in Public schools in Ekurhuleni District in South Africa.

https://docs.google.com/forms/d/e/1FAIpQLScdD9GGeYyzNedpV95cZrLbOIXMMXDaEuQTCmAC1xJClXCNNQ/viewform?usp=sf_link

Questions on Challenges Faced by Teachers of Dyslexic Learners in the Senior

Phase.

Ref: 2020/08/12/43477429/18/AM

You are invited to respond to the following research questions, that seek to find out the challenges that are faced by teachers of dyslexic learners in the Senior Phase. These questions are designed for any teacher, and not specifically for Special Education teachers. The purpose of the study is to come up with ways of addressing the challenges that, the teachers face when teaching learners with dyslexia.

sifanele.thebe@gmail.com (not shared) Switch accounts

*Required

I have been informed about the objective of the study and that participation is voluntary, confidential and anonymous.

I agree to participate in the study
I do not agree to participate in the study.
Other:

[   ]

1. Please indicate your gender.

Male
Female
Prefer not to mention.

2. Indicate the grade that you teach.

Grade 8
Grade 9
Both Grade 8 and 9

3. Indicate years of teaching experience.

Less than 1 year
1 year
2 to 5 years
5 to 10 years

4. Indicate your highest academic qualification.

Teaching Certificate
Teaching Diploma
Teaching Degree
Honours Degree
Master's Degree

5. Indicate the subject stream you teach.
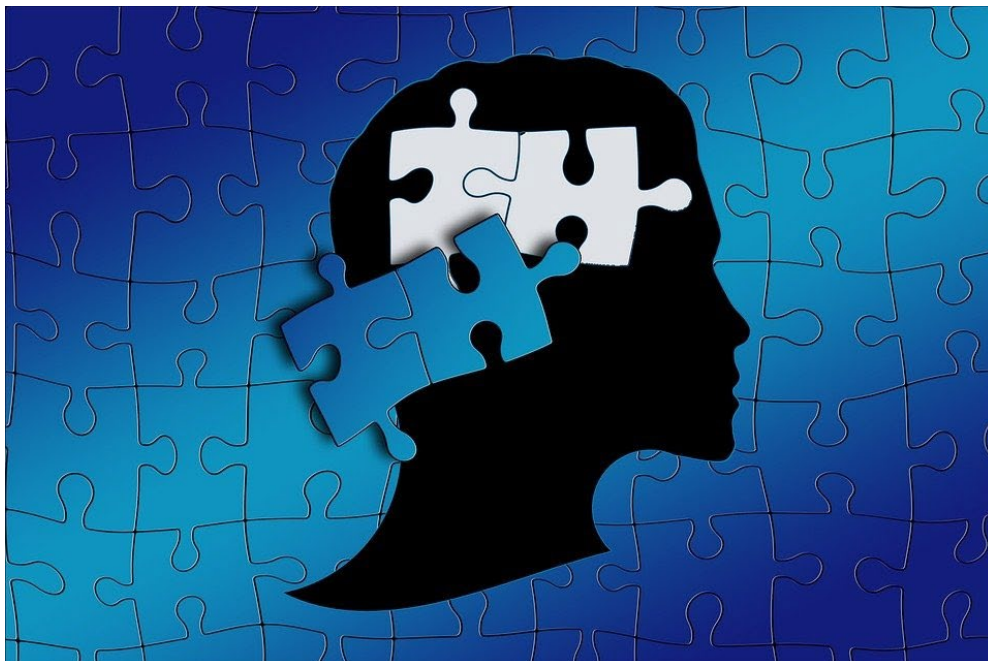
Academic subjects
Technical subjects
Both academic and technical subjects

6. Teacher training on special education.

I received training on special education
I did not receive any special education training

Dyslexia Study

7. What is your understanding of dyslexia? *

Your answer

8. How can you tell if a learner has dyslexia? *

Your answer

9. What assessments are you using to determine if a learner has dyslexia? *

Your answer

10. What intervention strategies do you use in dealing with a learner with dyslexia? *

Your answer

11. What challenges do you experience when teaching a learner with dyslexia? *

Your answer

12. What challenge do you experience in applying strategies to support a learner with dyslexia? *

Your answer

Submit

Clear form

Never submit passwords through Google Forms.

APPENDIX E: TURNITIN

Challenges Faced By Teachers of Dyslexic Learners in Public
Schools in The Senior Phase at Ekurhuleni District in Gauteng
Province in South Africa.

ORIGINALITY REPORT

11%
SIMILARITY INDEX

10%
INTERNET SOURCES

1%
PUBLICATIONS

3%
STUDENT PAPERS

PRIMARY SOURCES

APPENDIX F: EDITING DECLARATION

Blue Diamonds Professional Editing Services (Pty) Ltd

Polishing your brilliance

Email: jacquibaumgardt@gmail.com

Website: www.jaybe9.wixsite.com/bluediamondsediting

17 January 2022

Declaration of professional edit

Challenges Faced by Teachers of Dyslexic Learners in Public Schools in the Senior Phase at Ekurhuleni District in Gauteng Province in South Africa

by

Sifanele Thebe

I declare that I have edited and proofread this thesis. My involvement was restricted to language usage and spelling, completeness and consistency and referencing style. I did no structural re-writing of the content.

I am qualified to have done such editing, being in possession of a Bachelor's degree with a major in English, having taught English to matriculation, and having a Certificate in Copy Editing from the University of Cape Town. I have edited more than 300 Masters and Doctoral theses, as well as articles, books and reports.

As the copy editor, I am not responsible for detecting, or removing, passages in the document that closely resemble other texts and could thus be viewed as plagiarism. I am not accountable for any changes made to this document by the author or any other party subsequent to the date of this declaration. The academic content is the sole responsibility of the student.

Sincerely,

Dr J Baumgardt
UNISA: D. Ed. Education Management
University of Cape Town: Certificate in Copy Editing
University of Cape Town: Certificate in Corporate Coaching

Professional EDITORS' Guild

Jacqui Baumgardt
Full Member

Membership number: BAU001
Membership year: March 2021 to February 2022

jaybee@telkomsa.net
https://jaybe9.wixsite.com/bluediamondsediting

www.editors.org.za

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Sole Director: J Baumgardt