TEACHER PREPAREDNESS FOR INCLUSION AND SUPPORT OF CHILDREN WITH SPECIFIC LEARNING DISABILITIES (SLD) IN PUBLIC SCHOOLS: A STUDY OF MUTITUNI ZONE IN MACHAKOS COUNTY

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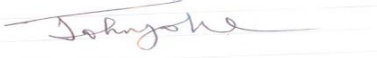
MAY 2023

DECLARATION

I, Evalyne Syokau Mutuku, declare that this Research project is my original work and has neither been submitted nor presented to any academic institution other than the University of Nairobi.

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DEDICATION

To my wonderful children Micaiah (Baraka) and Fadhili, always remember better is not good enough the best is yet to come.

To all dedicated teachers, nothing is impossible, the sky is not the limit, and learners with SLDs in any school just believe and give it your best!

ACKNOWLEDGEMENTS

ABSTRACT

Quality education is a key public good that should be a guarantee for all learners at all levels. However, there are a percentage of learners who face various difficulties in receiving proper accommodations in the classroom to support their learning journey, especially learners with Specific Learning Disabilities (SLDs). This study sought to analyze how teachers are prepared for inclusion and support for these learners all the way from pre-service training to in-service practice. The study was carried out in eight public schools in Mutituni Zone, Machakos County for in-service and retired teachers and the Machakos Teachers College for the pre-service teachers and teacher trainers. The study worked with the Universal Design for Learning Theory, which is essential in the development of inclusive attitudes and the promotion of support for learners. Looking at UDL, concepts as scaffolding; differentiated instruction; culture as part of the learning context; and, above all, how the teacher makes it all work. Primary data was collected via semi-structured interview guides and unstructured interview guides for the KII. The total number of respondents was 75 classified as class teachers, head teachers, retired teachers, teacher trainers and trainees. The study established that the large majority of the respondents understood the importance of inclusion and support for SLD learners but the gaps were in the preparation pre-service and professional development while in-service. The efficiency can be improved by courses in understanding SLDs and ways of differentiating effectively, as well proper collaboration between schools and parents for assessment for the learners with difficulties for better support.

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ACRONYMS

ACPF:	The African Child Policy Forum
ADD:	Attention Deficit Disorder
ADHD:	Attention Deficit Hyperactive Disorder
APA:	American Psychological Association
CAST:	Center for Applied Special Technology
CRPD :	Convention on the Rights of Persons with Disabilities
DI:	Differentiated Instruction
DSM:	Diagnostic and Statistical Manual of Mental Disorders
EFA:	Education for All
FPE: `	Free Primary Education
ICD:	International Classification of Diseases
ICLD:	Interagency Committee on Learning Disabilities
IDEA:	Individuals with Disability Education Act
IEP:	Individualised Education Programme
KISE:	Kenya Institute for Special Education
MoE:	Ministry of Education
NGO:	Non-Governmental Organisations
NJCLD:	National Joint Committee on Learning Disability
SDG4:	Sustainable Development Goal N°. 4
SEN:	Special Education Needs
SLD:	Specific Learning Difficulties/Disabilities
UDL:	Universal Design for Learning

UN:	United Nations
UNCRPD:	United Nations Convention and Optional Protocol on the Rights of Persons with Disabilities
UNESCO:	United nations Educational, Scientific and Cultural Organization
WHO:	World Health Organization
ZPD:	Zone of Proximal Development
KESSP:	Kenya Education Sector Support Programme
CBA:	Curriculum-Based Assessment
CARC:	Child Assessment and Resource Centre
KNH:	Kenyatta National Hospital
LS:	Learning Support
LDAIC:	Learning Difficulties Assessment and Intervention Centre
PBIS:	Positive Behavioural Interventions and Supports
WEF:	World Economic Forum
KASEP:	Kenya Association of Special Education Professionals
IELD:	Inclusive Education and Learners with Disabilities Programme
UNICEF:	United Nations Children's Fund
KICD:	Kenya Institute of Curriculum Development
ADHD:	Attention Deficit Hyperactivity Disorder
SNE:	Special Needs Education
IEP:	Individualized Education Programs
SDG:	Sustainable Development Goal
UN:	United Nations
CNS:	Central Nervous System

NJCLD: National Joint Committee on Learning Disabilities

ICLD: Interagency Committee on Learning Disabilities

MoE: Ministry of Education

NCLD: National Center for Learning Disabilities

UDL: Univeral Design for Learning

KESSP: Kenya Education Sector Support Programme

KCPE: Kenya Certificate of Primary Education

CHAPTER ONE

INTRODUCTION

1.1 Overview of Disability Education

Disability education is an essential component of inclusive education, which attempts to give all children the same chances for success regardless of their backgrounds, talents, or impairments. Despite the fact that the current condition of disability education differs among nations and areas, it is important to note some common policies, practices, and difficulties. In reality, though, a lot of disabled students still have a very difficult time getting into school. In accordance with the World Disability Report (2011), the number of children with disabilities worldwide is estimated to be between 93 and 150 million. Up to 33 million children with disabilities do not attend school in low- and middle-income nations. Social stigma and a lack of data monitoring on individuals with impairments make the issue worse (United nations Educational, Scientific and Cultural Organization [UNESCO], 2019). Lack of resources, accommodations, and unfavorable attitudes on the part of parents and instructors are a few of the prevalent problems.

Article 24 of the Convention on the Rights of Persons with Disabilities (CRPD, 2006) provides the international legal foundation for inclusive teaching for children with any type of disability. While Article 24(1) recognizes the right of people with disabilities to education, Article 24(2) lays out a number of guiding principles for the realisation of that right. The promotion of opportunities for lifelong learning for everyone is also a commitment made to the fourth Sustainable Development Goal (SDG) by the United Nations (UN) Agenda for Sustainable Development by 2030 (UN, 2016). The UN agencies and NGOs oscillate between focusing on specific groups while keeping the broader system intact. Additionally, they have a larger focus on access, basic literacy, and quality education, which results in losing momentum for inclusion for children with disabilities (Save the Children UK, 2012).

Many African nations lack laws and policies that adhere to the standards of international, regional, and human rights treaties (The African Child Policy Forum [ACPF], 2011). The Salamanca Statement (UNESCO 1994), the Dakar Framework (UNESCO 2000) of Action, and the most recent Incheon Declaration (UNESCO 2015) are among the agreements and declarations that support the

Education for All. Although there is still more to be done in terms of execution and human resources, most governments have made progress in providing inclusive education.

To guarantee that students with disabilities have access to school, numerous nations have put laws and policies in place. For instance, the Individuals with Disabilities Education Act (IDEA) in the United States ensure that students with disabilities receive a free, suitable public education in a setting with the fewest restrictions practicable. People with disabilities are encouraged to have equal opportunities and access to education within the legal framework of the European Union. Relevant papers are the European Accessibility Act and the European Disability Strategy 2010-2020. There are rules and regulations in many nations that guarantee that children with disabilities can access the educational system.

Given the enormous gaps in the transition for individuals with disabilities from training to employment, the Persons with Disabilities Act of 2003 have not been completely operationalised. The Children's Act of 2001, the Persons with Disabilities Act of 2003, the Constitution of Kenya of 2010, and the Basic Education Act of 2013 are among the laws regarding disability in Kenya. With all of the aforementioned legal measures addressing education for all, their implementation has proven to be the biggest obstacle. All stakeholders in the education system and the general public should be informed about implementation strategies in order to ensure accountability.

According to Hegarty & Just (1993) a nation that passes laws governing special education gives those laws legitimacy and increases the likelihood that the public, parents, and professionals will see them favorably. The creation and execution of laws and regulations pertaining to education determine the success or failure of the educational system, particularly as it relates to the inclusion of children with disabilities in the general population. The gap in special needs education policy's treatment of Specific Learning Difficulties/Disabilities (SLDs), autism, and communication impairments was also mentioned in Sessional Paper No. 1 of 2005.

Despite devolution, the National Government of Kenya retained several ministries solely, such as the Ministry of Education (MoE), hence the policies governing primary, secondary, and special schools were not decentralised (Gachago, 2018). This is due to the communities' lawful empowerment to make independent judgments and the discretion of authority and financial decision-making at lower levels, particularly for marginalised and vulnerable groups; devolution

can be considered a solution for inclusion in education. The legislative policies on education must be rights-based and supported by the relevant legislation in order to be inclusive.

1.2 Background of the Study

1.2.1 Overview of Specific Learning Difficulties

Over the years, the definition of SLDs has generated its fair share of debate, but the National Joint Committee on Learning Disability definition is the one that is most frequently used. It reads, "Learning disabilities are a generic term referring to a heterogeneous set of problems evidenced by severe challenges in learning and using listening, speaking, reading, writing, and mathematical abilities. Conditions can happen at any time in a person's life and are caused by Central Nervous System (CNS) dysfunction. Although they may coexist alongside learning difficulties, issues with self-regulation behaviours, social perceptions, and social interaction do not by themselves qualify as learning disabilities. However, learning disabilities are not a result of those conditions or influences. They can occur concurrently with other handicapping conditions like sensory impairments, mental retardation, and severe emotional disturbance or with extrinsic influences like cultural differences or inadequate or inappropriate instruction (National Joint Committee on Learning Disabilities [NJCLD], 1988).

The only change made to the NJCLD definition by the Interagency Committee on Learning Disabilities' subsequent definition (ICLD, 1987, p. 222) was the addition of social skills inadequacy. In the African setting, there is no standard description of learning difficulties (Abosi, 2007). The majority of instructors are aware of struggling students who are capable of performing at or above average but are having difficulty learning compared to their classmates in the same age and grade; therefore, this does not imply that there is a lack of understanding about SLDs. It is difficult to design inclusive education policies and curricula when the majority of African countries do not take the census of children with physical, intellectual, and learning disabilities seriously.

As shown by the definition above, SLDs are a general category of special education made up of challenges or limitations in one or more of the seven skill domains. The seven ability areas include speaking, listening, basic reading (word recognition and decoding), reading comprehension, arithmetic calculations, and written expression. Despite the fact that they are not the cause of SLDs, emotional, social, and behavioural disorders can coexist with or be present with the aforementioned

disabilities. To improve the assessment and training of learners with various SLDs, it is advised to use evidence-based definitions for each. Dyslexia, dyscalculia, and dysgraphia are the three most prevalent SLDs. It is important to note that this study will not examine any one specific SLD; rather, it will examine if teachers are aware of the presence of any such challenges and whether they feel sufficiently equipped to support such students in the classroom.

About 1 in 5 people in the US have some kind of SLD, according to the National Center for Learning Disabilities (NCLD). The most prevalent SLD, affecting 80–90% of those with SLD, is dyslexia. The percentages of people with SLD who have dyscalculia and dysgraphia are 6–7% and 10–30%, respectively. The SLDs shown above are spectrum disorders, which affect 5% to 15% of people in school-age children. This figure ranges from 8 to 10% in Africa (Abosi, 2007 & Drabble 2103). Accordingly, 4 out of every 20 students in a classroom will experience a variety of learning challenges (Wanjiku, 2023). Considering the scenario in Kenyan classrooms right now, where there are roughly 100 pupils in a class that means in a class of 100 students there are 20 who face learning challenges.

Among the difficulties faced by students with SLD are the following: Working memory problems, cognitive processing issues, and issues with sequencing make it difficult to retain things in chronological order or to understand the connections between the main idea and supporting ideas. SLD individuals find it difficult to do independent research and find information. To prevent information overload and confusion, they frequently require jobs to be divided into smaller, more manageable ones. When performing in front of people or during testing, anxiety levels can occasionally get extremely high.

Effective interventions are available to help people with SLD achieve academically and in other aspects of life, despite the fact that the causes of SLD are not entirely understood. Teachers, medical professionals, and caregivers must be aware of the symptoms and indicators of SLD in order to offer the necessary support and solutions. Several causes of SLDs have been speculated over the years: Genetic factors: A considerable genetic contribution to SLDs has been reported in several investigations, with a high heritability rate. For instance, a study by Peterson et al. (2017) indicated that a large sample of twins' reading ability variance was explained by genetic factors to the extent of roughly 53%.

Brain differences: Differences in brain structure and function have been found in people with SLDs in several investigations employing neuroimaging techniques. For example, Hoeft, Meyler, Hernandez, Juel, Taylor-Hill, Martindale... & Gabrieli, 2007) observed that during reading tests, children with dyslexia showed decreased activation in the left posterior temporal and inferior parietal regions of the brain compared to children with usual development.

Environmental variables: There is proof that, elements in the environment, such as prenatal exposure to pollutants, inadequate nutrition, and early childhood experiences, can affect the development of SLDs. For instance, Thapar, Collishaw, Pine & Thapar (2012) study discovered that infants born to moms who smoked during pregnancy were more likely to struggle with reading than infants whose mothers did not smoke. Cognitive deficits: According to research, SLDs may emerge as a result of problems with particular cognitive functions such as working memory, attention, and phonological processing. For instance, a study by Swanson (2014) discovered that math difficulties were linked to working memory deficiencies in a group of young children.

Interventions for SLD can differ based on the particular complexity and seriousness of the person's difficulties. Interventions that are frequently employed include:

- Multisensory instruction: This method aids in learning and information processing by combining strategies for the visual, aural, and kinesthetic/tactile senses.

- Assistive technology: People with SLD may find it easier to access and process information with the use of technological tools like text-to-speech software, speech recognition software, and specialist calculators.

- Accommodations: Providing individuals with SLD with accommodations like extra time on examinations, access to note-taking assistance, and preferred seating can help them excel in academic settings.

- Behavioural and social-emotional assistance: Some people with SLD might benefit from receiving behavioural and social-emotional support, such as therapy or social skills instruction.

Specific learning challenges do not signify that a child is incapable or unmotivated; they are always trying to push limits. When compelled to read aloud, a student who struggles with reading may appear to be reading a separate book, or their tongue may seem to adhere to the roof of their mouth.

They have bad handwriting, can write numbers and letters backward, and take too long to finish projects and chores, which gets them into conflict with teachers and results in punishment. Because they cannot keep up, the learner is kept inside for recess, lunch, and after school, which isolates them from their peers and may be bad for their mental health and development.

According to Newman, Wagner, Cameto & Knokey (2009), the nature of a learning disability can make it difficult for people to organize themselves, plan ahead, manage their time, remember facts and tasks, and express themselves, and as a result, they may struggle academically with reading, spelling, and math. SLDs are the most prevalent neurodevelopmental disorders affecting children, although estimates of their incidence vary widely since there are no universal diagnostic criteria, there are alternative definitions, and different age groups are taken into account.

Inclusion at a school refers to both social interactions and academic areas. Children who have learning challenges experience guilt, worry, frustration, social isolation, depression, and a lack of self-confidence almost every day. These events can have a significant psychological impact on a primary school student and contribute to the development of low self-esteem and a negative self-image. Due to their poor performance, hyperactivity, and general lack of internal satisfaction, these youngsters frequently do not receive appreciation.

1.2.2 Identification

Many nations rely on the research carried out by developing countries, particularly the United States of America and Europe, on the identification and interventions for SLDs that may also pose a challenge in culturally sensitive approaches and learning environments, particularly in developing countries like Kenya. ICD-10 (F81: special development disorders of scholastic skills) (Word Health Organization [WHO], 2008) and DSM-IV-TR (315: learning disorders) (American Psychological Association [APA], 2013) are the international disease classification systems used to refer to SLD.

The capacity to learn reading, writing, and math in these disorders is impacted by underlying neurological dysfunctions, and additional factors including the school setting, family environment, and social context have a role in phenotypic expression (Lorusso et al., 2014). A diagnosis of SLDs cannot be made during the early stages of learning to read and write because there is not enough time for the teaching and learning process to be completed. Although a perceptive teacher may be

able to spot the gaps and indications early, dyslexia, dysorthography, and dyscalculia can all be diagnosed by the end of grade 2, and dyscalculia by the end of grade 3. Reading proficiency is required for success in school and in all subject areas, and reading challenges account for 80% of SLDs (Fletcher et al., 2002). As a result, dyslexia is thought to be the most prevalent and well-studied specific learning disability.

Children with SLDs are recognised in the United States through the IDEA (2004) when they fall short of the standards set by the state or their grade in the areas of listening comprehension, oral expression, basic reading skills, written expressions, reading comprehension, reading fluency, mathematical calculation, and problem-solving (Grigorenko et al., 2020). The Kenya Institute of Special Education is still developing a tool for assessments and interventions for students with learning difficulties in Kenya.

1.3 Statement of the Problem

Despite the inclusion of impairments in educational policies, there remain gaps in planned interventions and support, particularly for teachers who must deal with students with diverse learning needs (SLD). To succeed academically, learners with specific learning disabilities (SLDs) frequently need specialised assistance and accommodations. However, a major problem is how well prepared teachers are to support and involve these learners (Kızılkaya & Karada, (2019); Haug, Solheim & Borge (2019) & UNESCO (2019). Students with SLDs may struggle to receive the right support from teachers who lack the knowledge and abilities to meet their needs, which can have a negative impact on their academic and social development. In order to enhance these students' academic performance, it is necessary the study sought to look into how prepared teachers are to help and include students with SLDs, as well as pinpoint the elements that either facilitate or obstruct effective support and inclusion. For effective inclusion of all learners, including those with unique learning difficulties, in formal classroom and school systems, teachers need training and skills in assessment, intervention, support, and inclusion of all learners. The government and the systems of school management should establish conditions and procedures that give instructors and learners with SLDs additional support. This study used fieldwork data collection from various public schools to examine the difficulties and opportunities teachers in Machakos County's, Mutituni Zone face in addressing the needs of students with SLDs.

1.4 Research Questions

The following research questions guided the study:

1. What are the teachers understanding of learners with SLDs and are they able to identify struggling learners?

2. Does teacher pedagogical training and professional development experience matter in understanding and supporting learners with SLDs?

3. To what degree is learning support provision effective in support for learners with SLD in public schools?

4. To what degree does a teacher's attitude and belief affect their support for learners with SLDs?

1.5 Research Objectives

The study's main objective was to assess teacher's level of preparedness for inclusion and support. The specific objectives were:

1. To assess the level of preparedness of teachers to support and include learners with SLDs in their classrooms.

2. To identify the challenges faced by teachers in providing effective support and inclusion for learners with SLDs, and to develop strategies to address these challenges.

3. To evaluate the effectiveness of existing training and professional development opportunities for teachers in improving their preparedness to support and include learners with SLDs, and to develop new opportunities where necessary.

4. To understand the attitudes and beliefs of teachers towards learners with SLDs, and to develop strategies to address any negative attitudes and promote a more inclusive classroom environment.

1.6 Justification of the Study

To ensure that students with SLDs receive a high-quality education, the study sought to examine teachers' readiness for inclusion and support of learners with SLDs. These students face special challenges in the classroom, and it is the job of the teacher to effectively instruct and support them. Teachers are better able to deliver a high-quality education that meets the particular requirements of these students when they are appropriately trained to include and support diverse learners.

Teachers may foster an inclusive learning environment that values diversity, equality, and respect when they are ready to support children with SLDs.

Studies looking at how ready teachers are to support and include students with SLDs, for instance, Kavale & Forness's (2000) revealed that many teachers lack the knowledge and abilities necessary to recognize and assist learners with SLDs. In a subsequent study, Zorlu & Cavkaytar (2015) discovered that, teachers' opinions of their own readiness and attitudes toward inclusion were important predictors of their capacity to serve SLD learners in an effective manner.

The majority of special education teacher training in Sub-Saharan Africa and other developing countries focuses on teaching in special segregated schools for students with severe physical and mental disabilities who may not have the necessary skills to apply to mainstream education assistance. Additionally, despite the fact that there are courses available, teacher trainees do not enroll in them during pre-service teacher training because they lack interest especially if not specializing in special education teaching. The study aims to add to the current conversation about how to best support teachers' learning, raise their understanding of SLDs, and identify some aspects that can be taken into account to raise teacher effectiveness and better serve a variety of student needs. Children with SLDs, the so-called "invisible disability," are harder to spot and provide for in special education than children with physical, mental, and intellectual disabilities. The lack of support in policy level and financial help at Ministry of Education, lack of information to parents and community on different types of learning difficulties, support and lack of goodwill from teachers and other education stakeholders is denying learners equal opportunities, support and inclusion (Elishiba Kiiru, 2018 & Kenya Institute for Special Education [KISE] 2016).

Mutituni zone had a good population of school going children and it was interesting to engage with the primary school teachers and understand the level of understanding of SLDs in primary classes and how they support them. Given the status of public schools today, it is not only important to have qualified teachers who are committed to assisting the students but those who have knowledge of inclusive practices.

1.7 Significance of the Study

The findings and recommendations of this study can assist in guiding policy on effective pre-service teacher preparation in response to the needs of 21st-century learners and the professional

development of in-service teachers so that they are well equipped to understand and sympathize with SLD students. This will empower them to better meet the needs of all learners in an inclusive classroom setting (Koomen, Kahn, Atchison & Wild, 2018). Teachers' understanding of disability policies is insufficient to allay their worries about including and assisting students with any kind of disability or difficulty (Chambers, 2020). For teachers to feel confident, they need the knowledge, tools, and support of continual professional development and collaboration between schools and teacher preparation programmes.

1.8 Scope and Limitation

The scope of the study on teachers' preparedness for inclusion and support for learners with Specific Learning Disabilities (SLDs) typically involved examining the current practices and approaches of teachers in catering to the needs of students with SLDs. The study explored the following: Teachers' knowledge and understanding of SLDs and the different types of SLDs; The strategies and techniques that teachers use to support learners with SLDs in their classrooms; The level of access to and utilisation of resources (e.g., instructional materials, assistive technologies, accommodations) that teachers have for supporting learners with SLDs; Teachers' perceptions of their preparedness for inclusion and support for learners with SLDs, including their training, confidence, and experience in this area. It sought to interrogate the role of the ministry of education in their policy guidelines concerning support for learners with SLDs and also to the teachers' pre-service and in-service training in line with support and inclusion for SLD learners.

Some limitations that should be considered in the outcome in this study may include:

- Sampling bias: The study only involved a specific group of teachers in a specific locality and may not be generalizable to the wider population. Therefore, caution should be exercised when interpreting the findings.
- Self-reported data: The study relied on self-reported data from teachers, which may not always reflect their actual practices and attitudes towards inclusion and support for learners with SLDs.
- Time constraints: The study did not allow for an in-depth exploration of all the factors that influence teachers' preparedness for inclusion and support for learners with SLDs. Therefore, the study may need to prioritize certain factors over others.
- Confounding variables: The study was not have been able to control for all the confounding variables that may have affect the outcomes. For example, the study may not have had control

for the level of support provided by school administrators or the availability of resources for supporting learners with SLDs. It may not also have been able to control for the level of support by the ministry of education in the same breadth.

CHAPTER TWO

LITERATURE AND THEORETICAL REVIEW

2.1 Introduction

In this section, the study will look at critical issues that influence and affect the teacher's capacity to provide inclusion and support for learners with SLDs. Suppose teachers can be well equipped to identify and support struggling learners through classroom pedagogy improvements, what impact it will have on education outcomes for all learners.

This review focuses on various literature written regarding teacher preparedness for inclusion and support for learners with SLDs in general classrooms and their findings. This will also include a theoretical viewpoint on the study subject as well.

2.2 Empirical Literature

2.2.1 Concepts of Inclusion in education

The goal of inclusion in education is to provide high-quality instruction while taking diversity, individual needs, talents, and learning goals into consideration. This is not a one-size-fits-all strategy. Rather, it is a continuous effort. UNESCO (2012) defines inclusive education as a process that addresses and responds to the various needs of all learners through inclusive practices in learning, cultures, and communities while lowering exclusion from and within the educational system. A unified vision embracing all children of the proper age range is required, along with alterations and revisions in content, approaches, structures, and techniques. It is also believed that it is the regular system's duty to educate everyone.

Despite the existence of established definitions and understandings of inclusive education, there is still disagreement on whether it refers to a process that focuses on individuals who were previously excluded or a plan for school reform that applies to all students (Florain & Pullin, 2002). If inclusive education is not properly explained, teachers may perceive it to be a whole different idea with additional or separate work. According to several studies by Vanegas, Artiles & Anastasiou (2018); Ebersold & Cramer (2017) & Avramidis, Aroni & Strogilos (2022), teachers who promote the inclusion of students with SLDs are better equipped to support and include them in regular classrooms.

According to an article by UNICEF (2021) on transforming the educational system in Africa, it places a focus on the issue of fairness and the requirement for a better, more inclusive education system that can meet the needs of the twenty-first century. Utilizing a range of variables and data sources, the report analyzes trends and inequalities in access, learning outcomes, financing, governance, innovation, and cooperation in education across the continent. The study offers recommendations to African politicians on how to improve the educational system and guarantee that all children and youth have the opportunity to learn and succeed. This report presents an overview of the challenges and advancements in the African educational system using data from the previous ten years. Understanding the current status of education in Africa and its potential for the future, as well as the chance for cooperation and action among numerous stakeholders, is made easier by reading the study.

The whole essence of inclusion according to Dr. John Mugo in KISE (2016) is that it is not only about including children with disabilities but including all children as they are all different and that every child is a different kind of flower and altogether makes this world a beautiful garden. In a home a good example of inclusion is that when a mother is preparing a meal, she will not give the same food to all the children because some may not eat meat, another may have a short digestive system while some can eat everything. Her familiarity with the learners in her home allows her to provide for their nutritional needs. In the same vein, a skilled teacher should be able to recognize the various needs of the learners in the classroom and make appropriate preparations for assessment and intervention. Although inclusion was originally intended to help students with physical disabilities to integrate into a regular classroom, it has become obvious that inclusion also benefits students who are typically developing and all students who are struggling.

After researching inclusion in Ireland, O'Gorman (2010) found that the country's educational system is exclusionary. He recommended that regular class teachers change their unitary approach, which ensures that all students, regardless of individual differences, receive the same educational opportunities. Despite the government's endorsement of a policy for inclusion, the notion of education is still not understood in Botswana and is still centered on integration and special education (Mangope et al., 2018).

The 2005 Sessional Paper No. 1 observed that communication disorders, SLDs, and autism are not given the same attention by policymakers as these other types of disabilities. The Kenyan

government has not provided clear direction on inclusive education, according to Kenya Education Sector Support Programme (KESSP), 2005–2010. According to the Sector Policy for Learners and Trainees with Disabilities as of 2018, inclusive education is an approach in which learners and trainees with disabilities are given the proper educational intervention within regular educational institutions with reasonable accommodations and support. This demonstrates advancement in the effort to pave the path for inclusive education. According to the Economic Survey, 2022, there were no registered K.C.P.E. candidates with SLDs from 2017 to 2020, despite the Sector Policy of 2018's recognition of LDs. This raises the question: What is the crucial component in providing for these students, or are they simply unreachable or unaccounted for?

Teachers need to be supported in viewing the cracks in the system, school, and classrooms as barriers to inclusive education so the learners are not seen as the problems. If done, they will be able to cope with including learners with diverse needs in school and the classroom. Nevertheless, focusing only on barriers to inclusive education puts exaggeration on the negative. It works against the sufficient role teachers play in welcoming diverse learners and recognizing and celebrating diverse strengths. It is no doubt that, whether diagnosed with a learning difficulty or not, many children are going through challenging and discouraging times in the classroom. Children with disabilities are generally included in a classroom but not in the classroom instruction due to the demand for inclusive education. This study aims to determine how teachers see inclusion in the classroom—whether it pertains to all students or just those with disabilities—and whether it affects how education is delivered in the classroom.

2.2.2 Comparing the Social and Medical Models of Disability

The medical model of disability, according to the WHO (2008), is an umbrella term, covering impairments, activity limitations, and participation restrictions. According to this concept, disability is a personal issue that can be resolved by medical treatment. Disability activists and academics, however, contend that disability is not just a personal issue but also a societal construct brought about by society's unwillingness to recognize the diversity of human bodies and minds. The social model of disability, which represents this viewpoint, emphasizes the need to get rid of obstacles that prevent people with disabilities from participating and being included in society.

Collectively, the following papers point to the social model as being more helpful than the medical model in understanding learning disabilities in the classroom. According to Owens (2015),

conversations about mental health care for those with learning disabilities have primarily focused on the medical model; however, a social model approach may provide more beneficial support. The social model has been overlooked in comprehending the experiences of people with learning disabilities, as Chappell, Goodley & Lawthom (2001) points out, while research involving self-advocates demonstrates their involvement with social model concepts. In his discussion of the paradigm change in inclusive education from a medical to a social model, Masuku (2021) emphasizes the significance of addressing the restrictive nature of disability and extending access. The social model has a favorable effect on the practice of providing services for people with learning disabilities, according to Coles (2001). It is challenging to generalize about whether or not all teachers approach learning impairments using the social thinking model. The social model of thinking about impairments has, however, grown in acceptance recently and is being applied more frequently in educational settings.

The social model of thinking about disabilities emphasizes that the issue is not the person's disability but rather the obstacles society erects in their path. This approach contends that impairment is a result of social and environmental conditions rather than an innate trait of an individual. According to the social model of thinking about disabilities in education, teachers should take into account both the social context in which a student is learning and the disability that particular student may have. This entails taking a close look at elements like the teaching style, the classroom environment, and the attitudes and views of others toward children with disabilities. The social model of thinking about disability has won the support of many educators, who are already implementing its tenets in their classrooms. In order to develop inclusive learning environments that serve a variety of learners, including those with disabilities, this requires putting Universal Design for Learning (UDL) concepts into practice. While work still needs to be done to fully integrate the social model of thinking about disabilities into education, many teachers are moving in this direction.

2.2.3 Teachers understanding of SLDs

Studies show that many teachers still do not adequately understand SLDs, despite the fact that SLDs are becoming more widely known and recognised. For instance, according to a poll by the National Center for Learning Disabilities (NCLD), just 16% of teachers were aware that SLDs might influence any area of learning, whereas 84% of teachers believed that SLDs were mostly

related to visual or auditory processing issues. Similarly, less than half of the teachers assessed in a study by Pisha & Coyne (2001) correctly identified the symptoms and signs of dyslexia, a prevalent SLD that impacts reading. Some teachers might be aware of SLDs, but they are frequently unable to pinpoint the precise learning obstacle and the steps to take in order to provide assistance.

The lack of emphasis on SLDs in teacher preparation and professional development programmes may be one factor contributing to this knowledge gap. Lembke et al.'s (2018) study discovered that just 10% of teacher preparation programmes offered thorough coverage of SLDs. Similar findings were made in a 2017 assessment by the National Academies of Sciences, Engineering, and Medicine, which discovered that professional development programmes for teachers frequently fell short of offering sufficient training on SLDs and research-proven teaching methods. According to El Keshky, Mogeda & Nasreen's (2018) study, teachers in the Kingdom of Saudi Arabia did not have adequate knowledge regarding learning disabilities. Their inadequate knowledge was because they needed to study in their academic training. A study by Gadhimathi & Eljo (2010) revealed that the nature of the school, teachers' age, and teaching experience had no statistically significant relationship with awareness of SLDs.

Due to the individual differences between each student and the vast range of learning disabilities that might make a class more delicate, the challenge of inclusion is particularly challenging for the teacher. Teachers, whether generalists or specialists, should be knowledgeable of the SLD symptoms and instructional techniques that are used to accommodate different student demands. These tactics could include the use of visual aids, multiple reinforcements to reinforce prior learning, memory aids like mnemonics and mind maps, and task segmentation. This study will examine how frequently teachers apply the strategies and whether they have any additional methods for assisting SLD students in the classroom.

The intricacy and diversity of SLDs may also play a role in the disorder's incomplete understanding. It can be difficult for teachers to identify SLDs and effectively handle them because they might present in a variety of ways and impair multiple learning domains. Furthermore, SLDs frequently co-occur with other illnesses, like Attention Deficit Hyperactivity Disorder (ADHD), which can make diagnosis and treatment more challenging. However, it is essential to note that many dedicated and skilled teachers worldwide work tirelessly to support learners with SLDs. These

teachers may seek additional training and resources and help to understand their student's needs better and provide effective interventions and accommodations.

Teachers can understand learners with Specific Learning Disabilities (SLDs), but it requires some specialised knowledge and training. To effectively support these children's learning, teachers must be aware of the special difficulties that students with SLDs confront in the classroom and knowledgeable about the appropriate solutions and accommodations. A student with dyslexia, for instance, might profit from listening to audiobooks or from having access to assistive technology that can read aloud literature. On the other hand, a student with dysgraphia can benefit from writing projects utilizing speech-to-text software.

While there may be some variation in teacher understanding of SLDs globally, many resources are available to support teachers in developing their knowledge and skills in this area. For instance, the Individuals with Disabilities Education Act (IDEA) requires that schools make accommodations and adaptations to meet each student's specific requirements and that learners with SLDs are entitled to adequate education and support services. For teachers and other professionals dealing with students with SLDs, professional organisations like the International Dyslexia Association (IDA) and the Council for Learning Disabilities (CLD) also offer information and training opportunities.

To assist teachers in Kenya in comprehending and addressing Specific Learning Disabilities (SLDs), a number of programmes and resources are available. KISE offers short-term courses and workshops on specific learning disabilities, such as dyslexia and dyscalculia. Kenya Association of Special Education Professionals (KASEP) provides networking opportunities, professional development resources, and advocacy for individuals with SLDs and their families. Inclusive Education and Learners with Disabilities Programme (IELD) is a joint programme between the government of Kenya and the United Nations Children's Fund (UNICEF) that provides training for teachers, resources for schools, and support for parents and communities. Kenya Education for All (EFA) Programme provides training and resources for teachers on inclusive education practices, including strategies for addressing SLDs. Kenya Institute of Curriculum Development (KICD) has developed guidelines and resources for teachers on how to address SLDs in the classroom, including specific learning disabilities in reading, writing, and mathematics. Several NGOs in Kenya that provide support and resources for children with disabilities and their families. Some

examples include the Autism Society of Kenya, the Kenya Association for the Intellectually Handicapped, Dyslexia International Kenya and the Kenya Society for the Blind.

2.2.4 Teacher Training

Those who see inclusive education as a problem that needs to be solved and those who see it as a motivator to enhance education for all are two opposing schools of thought that are fundamental to the field. The latter is more likely to result in changes to teacher education that incorporate inclusion and all of its tenets. Programmes for teacher education can be drastically changed by applying UDL (Rouse, 2016). For all nations, teachers are the most expensive and effective resource used in the education system, and the development of the force is crucial due to the new challenges facing both regular school teachers and special educators, according to the UNESCO open file (2001), which offers a compelling justification for teacher education in inclusive education.

El Keshky, Mogeda & Nasreen (2018) recommended that lawmakers arrange appropriate teacher training or structured learning programmes on SLD concepts, assessment, diagnosis, and identification for teachers. Williams (2013) explored a teacher training programme's effectiveness on teachers' understanding of SLDs. They found that teacher-training programmes play a very significant role in increasing the knowledge level of SLD among primary school teachers. Teachers need to receive appropriate preparation and continued support throughout their careers. The current training practices in Kenya for teacher training institutions show dominance in using conventional rather than modern teaching approaches (Kafwa Nabwire et al., 2016).

UNESCO cited all insufficient teacher preparation programmes, a lack of professional development, and a lack of curricular support in 2015 as barriers to providing high-quality education to all students. KISE reports that 29,000 special needs and inclusive instructors have received training countrywide. This number cannot meet the needs of students with disabilities, nevertheless. As a result, SNE and inclusive education must be covered in the curriculum for teacher candidates. Since the teacher candidates will also be familiar with learning disabilities, this will enable teachers to better fulfill the different needs of their students in a classroom without significant impediments. Inclusionary education, which is judged appropriate for people working in special needs education, is offered as a choice in the present pre-service teacher-training curriculum. This is a difficulty since students with unique learning disabilities are present in ordinary classrooms as well as in special schools and integrated units. When instructors enter the

classroom after graduation from college, they must be sufficiently equipped to satisfy the needs of the students.

Universities and teacher training colleges for elementary and secondary school teachers are where teacher education is conducted in Kenya. For primary schools, teacher candidates must have received a mean grade of C in their KCSE and complete a three-month practicum during their two years of training. The three-month practicum is not enough, according to Katitia (2015), to prepare teachers for careers as teachers. A KNEC test is part of the summative assessment, and students who pass it receive a certificate that they must produce to the TSC in order to register.

The behaviourist approach developed by Skinner, which is primarily teacher-centered and emphasizes the teacher's responsibility, is used in Kenya for teacher preparation activities. The learner is typically more passive in traditional schools, only responding when necessary and not actively participating in the learning process. Without a doubt, the preparation of teacher candidates to fulfill the requirements of learners needs to be reviewed and overhauled in light of evolving curricular trends, the march toward universal primary education, technology, and inclusive education.

Teachers typically impart knowledge by showing students how to use formulas and methods to arrive at a solution. There is no set recipe for producing completely new ideas, solutions, products, or services in the innovation-driven economy of the twenty-first century. Most SLD students resist arriving at the solution using conventional methods, which prevents them from fitting in standard classroom settings and may irritate the teacher. Since detecting SLDs is primarily the responsibility of the teacher, it is regrettable that teachers differ greatly in their comprehension of the traits and identification of students with SLDs (KISE 2016). This becomes difficult when learners with significant behavioural problems or ADHD are present in a large class with other learners (Cooper, 2022).

2.2.5 Pedagogy

According to Cuban (1993), the teacher-student relationship is the core of education and the foundation of pedagogy's effectiveness. As stated by Grumet (1995), children need to be surrounded by caring adults in order to feel valued and cherished. A teacher's personal and

professional qualities, as well as the way they approach learning and teaching, all relate to how they themselves are and are always evolving. Learning is influenced by a teacher's moral character.

Pedagogy is a contested term because of the arguments on how teaching and learning should be conducted (Watkin & Mortimore, 1999), as cited in Kumar & Baig, 2022. Shah & Campus (2021) define pedagogy as drawing on the social interactions between the teacher and learner – the practice that a teacher, together with a particular group of learners creates, enacts, and experiences. There is an opportunity for teachers to be self-reflective of their taken–for–granted assumptions and bring fresh ideas to inform classroom actions and events to meet the diverse learners' needs. Pedagogy must also front the role of teachers in the classroom and their impact not only on the cognitive aspect of learning but also on the material and objective (Watkins, 2006).

While teacher-centered and learner-centered pedagogies may conflict, they can work together to achieve educational objectives. A teacher-centered method, for instance, can introduce the concepts to the students when a new topic or theme is introduced. After that, a learner-centered strategy based on Bloom's taxonomy can be utilised to delve further into and explore the topic's or theme's ideas. The teacher-centered approach has been the norm in our classrooms because it has been embedded in teachers' education and training from a young age.

The sociocultural philosophy of education, which supports constructivism, makes use of scaffolds in the classroom to help students fully understand topics in preparation for their future independence. In whole-class instruction, scaffolding entails cueing students with words like "think about" and "look for" and assisting the challenging students by assisting them in responding and expressing their responses (Brophy, 2002, as quoted in Shar, 2021). When socially negotiated in classroom learning communities, learning becomes meaningful and accessible. Teachers using a well-informed constructivist pedagogy are often described as guides on the side, co-constructors of knowledge, facilitator, friends, discussion leaders, monitors of groups, coaches, and role models.

Shah (2021) proposed instructional practices that support progressive learner-centered pedagogy, which prioritizes the learner and encourages active learning. They consist of dialogue and instructional discussions, cognitive apprenticeships, problem-based learning, problem-based inquiry, and cooperative learning. Higher mental functions are fostered through social interactions in the classroom that provide social support and scaffolding for cooperative learning and the pairing of students to accomplish peer learning.

By initially determining learning objectives for each of their students, teachers can use UDL in the classroom as a foundation for developing lessons or units. Grade-level standards established by the government in the curriculum or education is included in the learning objectives. After setting objectives, the instructor selects instructional strategies that reduce obstacles for the students while facilitating greater access to recognition and strategic and affective networks.

For students with special needs, accommodations are essential, and teachers should think carefully before requiring them to follow customary procedures when doing so would be challenging for the student. For instance, students could write poetry, make art, give a speech, or write an essay to show that they comprehend the concept of rhyming words. All learners have agency thanks to these various options for them to express themselves and demonstrate their grasp of the material (World Economic Forum [WEF], 2019). The classroom must provide students the freedom to explore numerous approaches, compare the outcomes to iterate, and build on others' ideas rather than pushing them to find the one right solution in order to foster an innovative and creative learning environment. A strong sense of community in the classroom and the ability to respond to talented students foster ownership of the learning process. Different people who have problems in a certain area express themselves individually. Delivering differentiated instruction and scaffolding for all levels of learners will be made easier with an understanding of the learners' challenges in producing the appropriate output.

One of the core tenets of UDL is in designing flexible lessons and learning environments to address learning barriers rather than trying to fix and change a student.

2.2.6 Professional Development

For teachers in Kenya to support students with specific learning disabilities (SLDs), opportunities for professional development have been made available. However, it is still difficult to offer high-quality instruction and professional development that can meet the demands of students with SLDs. The Kenyan government has put laws and procedures into place through the Ministry of Education, Science, and Technology to serve students with special needs, including those who have SLDs. In

order to accommodate students with impairments, the government has also developed special education sections in select schools. Additionally, a number of national and international organisations and institutions offer instructors professional development and training to serve students with SLDs (refer to 2.2.3 above).

More resources, insufficient training opportunities, and inadequate support for teachers to use what they have learned in the classroom are some of the difficulties that come with offering high-quality training and professional development. All of these articles emphasize the necessity of suitable teaching strategies, ongoing professional development, and support networks to guarantee SLD students' success in general education courses (Deshler et al., 2001; Deshler et al., 2009; Deshler et al., 2009 & Downing & Eichinger 2003). Additionally, there is a demand for more trained instructors who are equipped to serve students with SLDs, so those who are already employed by the majority of schools may require additional education and training to be able to do so. In order to prepare instructors to help students with SLDs in inclusive settings, professional development is essential. Programmes for professional development should include continual mentoring and feedback to assist instructors in putting what they have learned into practice in the classroom. Peer mentoring, observation, and coaching sessions can be used to do this, which significantly improves teacher readiness and student outcomes (Gersten, Fuchs, Williams, & Baker, 2001).

Teachers who continue their professional development have the opportunity to learn more about the SLDs that students in general education classes are likely to experience. For teachers working with students with SLD, professional assessment consultation and collaborative teaching should be made available. The key to dealing with SLD students is not a plethora of additional materials, computers, or software, but rather for teachers to comprehend the implications for SLD students and instruct with empathy and understanding. Only ongoing professional development can lead to this.

According to a study by Johnson and Shoho (2017), instructors who take part in classroom management professional development were better able to control their classrooms and raise the academic performance of children with SLDs. The research discovered that teachers who had received training in Positive Behavioural Interventions and Supports (PBIS) were better at controlling pupil conduct and fostering a happy learning environment. Effective classroom management for learners with SLDs necessitates a balance between structure and flexibility,

according to another study by Soodak & Podell (1996). The study discovered that teachers who are flexible and attentive to the requirements of each individual student, as well as those who set clear norms and procedures, are better equipped to provide a pleasant learning environment for children with SLDs.

Training in research-based teaching approaches should be included in effective professional development programmes, which should also include ongoing coaching and feedback for instructors and be tailored to their individual needs. In order to fully prepare instructors for their duties in supporting students with a variety of needs, teacher education programmes should also cover SLDs and inclusive education.

2.2.7 Personal Beliefs and Attitudes

Numerous studies have demonstrated the importance of teachers' individual attitudes and views concerning SLDs in determining how well prepared they are to support and integrate students with SLDs [Fidan (2016); Hornstra, Denessen, Bakker, van den Bergh & Voeten (2010); Klassen & Chiu (2010) & O'connor & Butterfield 2014)]. According to a study by Stough & Palmer (2013), teachers who believed that students with SLDs should be included in regular classes were more likely to be ready to support and include them. Similarly, a study by Kohli, Sharma & Padhy, (2018). (2019) discovered that educators who had a pro-SLD mindset were better equipped to support and integrate students with SLDs.

According to a study by DeSimone & Parmar (2006), a major barrier to readiness for helping and including students with SLDs was unfavorable attitudes concerning SLDs and inclusive education. Insufficient training, resources, and administrative support from the school were also mentioned as obstacles to being ready to help and include students with SLDs. Teacher education and training also significantly prepare teachers to support and include learners with SLDs with a better perception. The revision of the current pre-service teacher training curriculum should consider responsiveness to the range of beliefs and experiences among the trainees in helping them reflect and change attitudes where necessary enabling a move towards building practical skills and confidence.

Teacher training, previous teaching experiences, the teacher's position in the school, school environment and culture, and a teacher's whole learning experience since childhood can affect a

teacher's practice. Teachers' professional development enhances the quality of instruction a teacher gives and is crucial for developing inclusion and support for all diverse learners.

2.2.8 Assessment

Education access is crucial for children with learning disabilities (SLDs), and greater access to education Classroom teachers play a crucial role in identifying and recognizing problematic students, as there is no single test to establish SLD. Teachers must possess a better sense of expertise and be able to identify learning signs and implications to prepare suitable assistance techniques. Inclusive assessment tools for SLDs can help reduce obstacles and increase the accuracy of assessment outcomes. Examples include Universal Design for Learning (UDL) assessments, Curriculum-Based Assessments (CBAs), dynamic assessments, assistive technology, and personalised assessments. KISE offers free evaluations for all disabilities, including learning challenges. The Child Assessment and Resource Centre (CARC) in Nairobi offers assessments for children with learning impairments, including SLDs. Nairobi's Kenyatta National Hospital (KNH) provides diagnostic and therapy services for children with SLDs. The Child Development Centre at Aga Khan University Hospital in Nairobi provides thorough evaluations for learners with learning challenges, including SLDs. The Learning Difficulties Assessment and Intervention Centre (LDAIC) in Mombasa and Dyslexia International in Kenya also offer assessments for SLDs. However, the AERCs in the counties are under utilised due to staffing and financial issues. Teachers must be capable of spotting and helping struggling students in their classrooms with the help of school administration to recommend further action.

2.2.9 Learning Support

Students with special learning disabilities (SLDs) in Kenya must have access to Learning Support (LS) in order to promote a positive learning environment and stimulate growth. Bates (2014) highlights the significance of providing students with support outside of the context of official knowledge delivery and utilizing peer tutoring to create a positive learning environment. The need for additional learning assistance in schools, including policies, infrastructure, staff, instruments for evaluation, and instructional materials, is emphasised by Whitten & Thomas (2012). Despite the tools available, LS is essential for challenging students as well as the entire school because students of all levels require help. Most SLD students in Kenya don't get an IEP until a parent or caregiver takes them for an evaluation.

In order to support students with SLDs, the Kenyan government has created regulations and guidelines such the Policy Guidelines on Inclusion of Learners with Disabilities in Education (2018) and the Guidelines on Identification and Provision of Education for Students with Special Needs (2019). These recommendations help in identifying and evaluating students with SLDs and in offering the proper support and accommodations. The majority of schools do not have an individualised education programme or plan for students with SLDs unless a child is examined. The country's 17 policy declarations are very well reflected in the sector policy for learners and trainees with disabilities from 2018, but the implementation process is always a difficult road to travel.

2.2.10 Countries Case Comparisons in Assessment and Support

Singapore and Taiwan have implemented dual systems to support learners with disabilities in schools. Singapore uses a dual system, with mainstream schools providing at least one learning support for literacy and mathematics and one allied educator providing specialised instruction. In Taiwan, learners with LDs receive services in general classrooms or resource rooms, while those performing close to their general education receive two to four hours a week of specialised instruction within general education.

In Finland, only 8% of children with special education needs are in special schools, with the rest placed in mainstream schools. In mainstream classes, a special teacher is assigned to each school, working closely with the class teacher to identify learners needing extra help. Multi-professional care groups, consisting of the principal, special education teacher, school nurse, social worker, school psychologist, and teacher, meet twice a month for two hours to analyze needs and determine if extra help is needed beyond what the school can offer. To establish a standard school in Finland, reforms should have focused on recruiting highly talented young people, allowing teachers to differentiate instruction, diagnose learning problems, and access learners' progress. Additionally, creating school cultures where teachers take collective responsibility for the learning and well being of their students and providing access to extra support for children and families most in need can help ensure that virtually all students in virtually all schools thrive (OECD, 2010b).

2.2.11 Collaboration and Communication

Banks (2018) found that teamwork greatly improves teachers' readiness to serve SLD students in inclusive classrooms. Teachers are better equipped to recognize and meet the unique requirements of SLD students when they work in collaboration with other educators, parents, and other experts, including occupational therapists and speech therapists. As a result of this teamwork, students with SLD may benefit from more individualised and engaging learning experiences that take into account both their strengths and deficiencies.

The ability of instructors to effectively communicate is also essential for their readiness to support and include students with SLD. In order to work effectively with others in aiding SLD students, teachers must have great communication skills, according to Singh et al. (2020). To make sure SLD students comprehend the instructions and the course materials, teachers should engage them in a variety of communication techniques. Additionally, teachers should stay in touch with parents frequently to keep them updated on their children's development and any difficulties that may arise. Sharma, Baral, Khanal & Bista (2018) found that, opportunities for professional development and teacher training were essential for assisting SLD students in inclusive classrooms. Teachers who received adequate training and professional development were better equipped to collaborate and communicate effectively with other educators and professionals, leading to improved support for SLD learners.

Teachers in a study by Bal & Kocak (2018) claimed that peer support encouraged the sharing of knowledge and methods for supporting SLD students. Regular meetings, mentorship and coaching opportunities, and chances for teachers to observe and learn from their colleagues are just a few examples of this support.

2.3 Theoretical Framework

2.3.1 The Universal Design for Learning (UDL)

In line with the UDL, the curriculum design, goals, assessment procedures, and materials—all of which have the power to either enable or disable the learning environment—are seen as the root of earning hurdles. Anne Meyer and David Rose created the UDL tenets in the 1990s at CAST. Its fundamental objective is to remove obstacles and give all students equitable, meaningful access to the curriculum. The three UDL guiding concepts are:

- Provision of multiple means of learner engagement by use of different tasks and different learning situations; some learners prefer working alone, others prefer group work, some prefer open-ended, highly subjective tasks, while others like structured, objective tasks. Teachers must catch learners' interest and guide them to sustain the effort, persist toward a goal, and self-regulate their learning behaviour.

- Multiple means of representation of content (input) to be learned. One way or process of providing and presenting content benefits a few learners. The advantage of multiple ways of presentation is; that all students will have access to learning, new information will be reinforced in multiple ways, and; learners will more likely be expert learners as they are familiar with multiple ways of receiving information and know what works for them.

- Provision of multiple means of Actions and Expression (output) to meet the needs of all learners; there should be options for physical action, communication, and executive functions like organisation, planning, and execution of tasks differently are essential. Writing and oral responses should also continue being used for learners who best output in these ways.

Rapp & Arndt (2012) proposed a fourth principle in addition to the first three, stating that there should be a variety of evaluation methods that take into account how students learn, how content is represented, and how they act and express themselves.

As a framework, UDL works to improve and optimize teaching and learning for all people based on scientific insights into how humans learn. It also emphasizes how people learn is as unique as their fingerprints. The UDL framework looks different in every classroom, but some commonalities focus on expert learning for all learners. The commonalities are Learners' knowledge of the goals, intentional flexible options for all students, and learners' ability to build and internalize their learning. Learners do not take whole group instructions better because the focus is not there, which is the trend in traditional teaching methods. This is why learning materials have to be given differently to meet each learner's needs and internalisation of concepts.

UDL also emphasizes the notion of differentiated instruction (DI), which is a learner-centered pedagogical notion. According to Shareefa et al. (2019), the fundamental tenet of differentiated teaching is that it should foster better levels of critical thinking abilities, awareness, creativity, and tolerance for variations in processes, products, and topic domains throughout the learning process. With differentiated instruction (DI), the teacher can alter curriculum components in response to the

learner's needs. The teacher must be aware of who and what they are teaching in order for DI to be successful, which is why it is important to get to know each learner personally.

DI, therefore, provides a synthesised framework for the facilitation of standards of inclusion and adapted learning (Shareefa et al., 2019). DI is, however, quite difficult to implement in large class groups; hence the use of small groups and collaborative learning is emphasised. The fundamental principle in DI is that it should promote a high level of thinking skills, awareness, creativity, and allowance for the differences in processes, product, and content domains throughout the learning process. Differentiation allows the teacher to modify curricular elements in response to the needs of the learners, and for it to be successful, a teacher must be aware of whom they are teaching; therefore, the need to understand all learners in a class at an individual level.

The four elements of DI are as follows:

- Content- what the teacher wants the students to learn;
- Process- learning activities that guarantee the application of the critical thinking abilities needed to make sense of concepts and information.
- Product: This is a way for students to show off what they have learned.
- An environment that fosters a supportive learning community while the teacher and students continue to respect and care for one another, provides a synthesised framework in facilitating standards of inclusion and adapted learning.

Both UDL and DI are ways of interacting with all pupils. The differences, however, are that DI is included in lesson preparation at the end of learning and is utilised by teachers to make lessons accessible to a group of students they have not yet reached. On the other hand, UDL concepts are incorporated at the level of learning goal identification, right at the start of lesson planning. All learners can benefit from the concepts, whereas DI includes those on the periphery at the very end of the process (Griful-Freixenet, Struyven & Vantieghem 2021). The educational framework known as UDL, or Universal Design for Learning, attempts to accommodate the learning requirements of all students, including those with special learning impairments (SLD).

Here are some ways that UDL can support SLD students:

i.)   Multiple Means of Representation: UDL provides multiple ways for students to access information and ideas. For SLD students, this can mean presenting information through

visual aids, such as images, graphs, and charts, as well as through text and spoken language. This is particularly helpful for students with SLD, who may struggle with certain types of information or have difficulty processing information in traditional ways.

ii.) Multiple Means of Expression: UDL provides multiple ways for students to demonstrate their understanding and knowledge. For SLD students, this can mean offering a variety of ways for them to communicate their ideas, such as through speech, writing, or visual representations. This allows students with SLD to showcase their strengths and abilities in a way that works best for them.

iii.) Multiple Means of Engagement: UDL provides multiple ways for students to become interested and motivated in their learning. For SLD students, this can mean offering activities that align with their interests and strengths and that allow them to work at their own pace—providing options for choice and autonomy, using real-world and relevant examples, and providing opportunities for collaboration and social interaction. This is important for students with SLD, who may need additional support to stay engaged and motivated in the learning process.

iv.) Flexibility and Personalisation: UDL provides flexibility and personalisation in the learning environment. For SLD students, this can mean providing accommodations such as extra time on assignments or tests, using assistive technology to support their learning, or allowing them to work in a quiet environment.

UDL provides a flexible and inclusive approach to teaching and learning, which can support the diverse needs of SLD students and help them succeed in the classroom.

2.3.2 Summary of Theoretical Framework

The theory is essential in the development of inclusive attitudes and the promotion of support for learners. Looking at UDL, concepts as scaffolding; differentiated instruction; culture as part of the learning context; and, above all, the teacher overlap and promote our understanding of what social learning in a school environment can look like. The ideas determine the learning environment in the class and influence the inclusion of learners in the learning process. UDL helps to create a more inclusive and accessible learning environment for all students, including those with SLD. This can lead to improved academic outcomes, increased student engagement and motivation, and a more positive and equitable learning experience for all learners.

2.4 Conceptual Framework

The following is a conceptual framework for Teachers' preparedness for inclusion and support for learners with Specific Learning Disabilities (SLD):

The **independent variable** is Teacher Preparedness as measured by: an understanding of SLDs, personal attitudes and beliefs, knowledge of assessment and screening, instructional strategies, classroom management, collaboration and communication, and professional development. The **dependent variable** is Inclusion and Support. The **intervening variables** are school culture and environment and class sizes. These intervening variables shape the process of delivering quality teaching and support mechanisms in the classrooms.

The cases of learners who have been well supported will be measured by learning outcomes through teacher accounts by use of performance records. The study is not interacting with learners for data collection due to time and other ethical constraints in carrying out children based studies.

Independent Variables   **Dependent Variables**

Teacher Preparedness as measured by:
- Understanding SLDs
- Training and Professional Development
- Knowledge of Assessment and Screening
- Classroom Management
- Collaboration and Communication
- Instructional Strategies
- Personal Attitudes and Beliefs

Inclusion and Support for Learners with SLDs

Intervening Variables
- Previous learning and teaching experiences
- School culture and environment
- Class size

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CHAPTER THREE

METHODOLOGY

</div>

3.1 Introduction

This chapter details the methodology to be used in the study; research design, study location, target population, sampling technique and sample size, research instruments, data analysis, logistical and ethical considerations.

3.2 Research design

The study used a descriptive case study design to examine the level of inclusion and support for learner with SLD in the 8 schools in Mutituni zone with the aim of understanding if there are any challenges and opportunities for growth in support and inclusion of all learners in the learning process. Since it is more than one school, we can consider it as a multiple case study design hence there will be multiple sources of data. A case study is about examining a particular contemporary phenomenon in its context using multiple sources of evidence (Robson, 1993). The data from the eight schools will give us multiple evidence to compare as well as the evidence from the county education officials.

3.3 Study location

Mutituni zone is a sub-county in Machakos County with a growing population that is slowly but surely becoming urbanised. It is located in Eastern Kenya in Machakos Central with an estimated terrain of 2023 meters above sea level. There are a total of eight public primary schools with an approximate student population of 3731 and approximately total of 93 teachers employed by the government. Most schools in the area perform at average or below average. The choice of the study location was due to the convenience for the researcher due to constrained resources and availability of social capital in the area because it is the local area.

This is the breakdown of school student and teacher population for the eight schools in Mutituni zone: source; https://shulezote.co.ke/place/sub-location/mutituni/mutituni/.

Name of Primary School	No. of Teachers	No. of students	Class-teacher ratio	Student-teacher ratio
Kasaini (SCH01)	7	184	1:26.3	34.6:1
Kiteini(SCH02)	13	478	1:37	41:1
Kivutini (SCH03)	10	400	1:40	40:1
Ngelani (SCH04)	8	258	1:32	32.3:1
Mbukoni (SCH05)	17	441	1:26	26:1
Mua farm (SCH06)	7	289	1:42	42:1
Mutituni S. A (SCH07)	11	550	1:30.5	30.5:1
Ngomeni (SCH08)	10	500	1:50	50:1

3.4 Target Population

Lavrakas, (2013) defines target population as the units for which the survey data are meant to be generalised. The target population is a means of also staying cost-effective in research. For the purpose of this study the population of interest was teachers of different levels of experience. The study is targeted for the teachers in the county as they possess the knowledge and understanding needed to answer the objectives of the study. Therefore, the targeted respondents were class teachers, head teachers, pre-service teachers, teacher trainers and retired teachers.

3.5 Sampling

Sampling is the selection of a subset of the population of interest for the study by use of a sample which is a representation of the whole set of data the researchers will use, selected from the larger population by pre-defined selection. For this study, choice of purposive sampling was adopted due to the desired qualities of the informants and information needed. The respondents gave information for the study based on their knowledge and experience (Tongco, 2007).

Purposive sampling is a non-random method of sampling that can be used when random sampling is not feasible or efficient. It becomes realistic in terms of time, effort and cost of finding informants (Tongco in 2007). The possibility of informant biases and their reliability is a major concern but the informants must be in a position to be available, willing to participate, ability to communicate

experiences and opinions in an articulate, expressive and reflective manner to reduce or eliminate biases. SLDs fit the category of extreme and deviant cases as well as intense in getting information (Patton, 1990) that leads to understanding the discrepancies in the system that does not cater for all learners equally. Total number of the teachers in the eight schools was 69 and 53 were interviewed which was 77% of the total population of in-service teachers. The targeted pre-service teachers, teacher trainers and retired teachers was 25 and available who were interviewed was 15. This accounted for 60% of the total. Total representation of respondents was 72% response rate. The KIIs included retired teachers, teacher trainers, and head teachers. The proposed sample for this study was ideally 100 respondents purposively chosen from the target population but the working number dropped to 75 respondents due to constraints of time and resources. The breakdown of the proposed respondents is as follows:

Proposed Respondents	Number Proposed	Successful Interviews
School Head Teachers	8	7
Class Teachers	60	53
Retired Teachers	10	5
Teacher Trainers	5	4
Teacher Trainees	10	6
Total	**100**	**75**

3.6 Data Collection

The study adopted a combination of semi-structured interview, and unstructured KII interview guides. The CAPI tool to collect data using a questionnaire that was uploaded on the Kobo collect app to capture qualitative and quantitative components of the study. The supervisors before going to the field scrutinised the data collection tools that were the questionnaire and interview guide. There were open-ended questions for in-depth probing of various aspects of the study. The major respondents were class teachers, school heads, pre-service teacher trainees and teacher trainers. The array of questions touched on understanding of SLDs, class management and resources, understanding inclusion, support for both teachers and learners, and school policy. Observation of class management was not due to constraints with time and some learners were engaged in exams at the time of the data collection.

3.7 Data Analysis

In order to analyze teacher preparedness for supporting and including learners with Specific Learning Disabilities (SLDs), both descriptive and analytic statistics were utilised.

Descriptive statistics were used to provide an overview of the data collected. The following descriptive statistics can be computed:

- Measures of central tendency: Mean, Median, and Mode - these gave an idea of the average level of preparedness for the teachers surveyed.
- Measures of variability: Range, Standard Deviation, and Variance - these gave an idea of how much the teacher preparedness varies among the teachers surveyed.
- Frequency distribution - this showed how many teachers fall into each level of preparedness.

Analytic statistics were used to explore relationships. For example, correlation - measured the strength and direction of the relationship between teacher preparedness and other variables such as the years of experience, training received, or the type of SLD.

Therefore, both descriptive and analytic statistics were used to analyze teacher preparedness for supporting and including learners with SLDs. Descriptive statistics can give an overview of the data collected, while analytic statistics can help to explore the relationships between teacher preparedness and other variables.

Qualitative data was, coded, transcribed and analyzed thematically and the results interpreted according to the objectives of the study. Qualitative data gave meaning to the understanding of inclusion and support and quality provided while quantitative data deduced availability of inclusion and support. The data was analyzed by use of SPSS software.

3.8 Logistical, Ethical and Community Considerations

Ethics in research are important in ensuring that proper protocol is followed and the rights of every participant including the researcher are protected and there is transparency in the whole process.

Following the approval by the University of Nairobi through the Institute for development Studies, a research permit was sought from NACOSTI. The county education commissioners in Machakos were consulted to facilitate visits and data collection from schools. There was approval sought from the school heads as well. The respondents were requested to participate in the study after assurance

of their confidentiality and anonymity of identity. They were also informed on the purpose of the study and that the collected information is only for this study and when the findings are complete, they can be disseminated to them upon request.

Table 1: Data Needs Table

Research Question	Data Needs	Data Collection Methods	Source of Data
What is the role of teacher training and experience in inclusion and support of learners with SLD?	No. of years in teacher training. No. of years teaching. Type of teacher training (regular, special education and inclusive). Gender, age No. of teachers in professional development courses	**Questionnaire, interview guide**	Teacher trainers, trainees and teachers in schools, TSC, KISE official, KICD official, AERC official
What is the role of pedagogy in influencing curriculum for inclusion and support	Type of pedagogy taught-Is it learner centered or teacher centered. Understanding differentiated instruction.	**Questionnnaire, interview guide**	Teachers in school, teacher trainers, teacher trainees, retired teachers, KISE official, AERC official,

What is the degree of learning support for learners with SLDs?	What steps has the schools, parents or government taken in providing learning support for all. Class size and number of learners in need of support. No. of teachers in the school trained in special education.	**Interview guide, questionnaire**	Teachers in schools, parents, school heads, school counsellors (if available), County education officials, AERC official
What is the teachers understanding of SLDs and how do they identify struggling learners?	Familiarity with different types of SLDs and which ones do they know? Can they spot a struggling learner and identify ways to support? Any training in inclusive education or special needs	**Questionnaire, interview guide**	**Class teachers, subject teachers, teacher trainees, teacher trainers, AERC official**

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSIONS

4.1 Introduction

The intent of this study was to examine the level of teacher readiness for including and assisting students with SLD in public schools from both pre-service and in-service teachers as well as perspectives from retired teachers. Using pre-service teacher trainees and trainers from the Machakos Teachers Training College, and teachers from eight primary schools in the Mutituni Zone of Machakos County, conducting field study with the teachers carried out the study.

This chapter, which is based on the research goals the study set out to accomplish, discusses the research findings and results. The conclusions are based on information gathered from key informants utilizing semi-structured interview guides and unstructured interview guides.

4.2 Demographics

The total number of respondents was 75. According to the field observations majority of teachers in the schools were female (60%)and fewer male teachers (40%) across all categories of respondents. Additionally, feedback from the teacher training colleges showed that there are more female trainees as well as trainers than male. It is important to note that the gender ratios were not pre-planned but that was the situation on the field during data collection. The respondents' ages ranged from 25 to 74 years.

The distribution among different educational roles showed that Class Teachers were the most prominent group having a wider age range of between 25 to 57 years. Head Teachers age range was between 41 to 59 years, Retired Teachers age range was between 61 to 74 years, Teacher Trainers age range was between 44 to 58 years and Teacher Trainees were generally younger with age range of 27 to 33. The respondents were categorised into five roles - Class Teacher, Head Teacher, Retired Teacher, Teacher Trainer, and Teacher Trainee.

Table 2: Teacher Roles

Role	Frequency	Percent
Class Teacher	53	70.7
Head Teacher	7	9.3
Retired Teacher	5	6.7
Teacher Trainer	4	5.3
Teacher Trainee	6	8
Total	**75**	**100**

Source: Field data, 2023.

These findings also provided an overview of the academic qualifications of individuals in different teaching roles, with a particular focus on Class Teachers, who made up the largest portion of the respondents. Class teachers mostly held a P1 certificate, diploma or a University degree as their academic qualification. Only one had a master's degree.

Head Teachers were the second-largest group of respondents, primarily holding diploma and University Degrees. A small number of Retired Teachers and Teacher Trainers, held a diploma, P1 and University degree. All teacher trainers held Masters degrees and all Teacher Trainees, had a diploma. Overall, diploma holders are the majority followed by P1 then university degree and the least Masters degrees.

Table 3: Academic Qualification Vs Teacher Roles

Role	Academic Qualification				Total
	P1	Diploma	University degree	Maters	
Class Teacher	24	16	12	1	53
Head teacher	0	4	3	0	7
Retired Teacher	1	3	1	0	5
Teacher Trainer	0	0	0	4	4
Teacher Trainee	0	6	0	0	6
Total	**25**	**29**	**16**	**5**	75

Source: Field data, 2023.

4.3 Inclusion and Specific Learning Disabilities

The total respondents, who indicated that they were familiar with the term "specific learning disabilities/difficulties were 78.7%. Those that indicated that they were not familiar with the term "specific learning disabilities/difficulties" were 21.3% of the total respondents. This is contrary to literature that states that most teachers may not be aware of SLDs, (Pisha & Coyne (2001); Kavale & Forness (2000).

Table 4: Familiarity with the term Specific Learning Disabilities/Difficulties

	Frequency	**Percent**
Yes	59	78.7
No	16	21.3
Total	75	100

Source: Field data, 2023

The analysis showed that Dyslexia, Dyscalculia, and Intellectual Disability are the most prevalent conditions among those with Specific Learning Disabilities, while Dysgraphia, ADHD, and ASD also have notable representation. The "Other" category accounts for a smaller proportion of cases. The presence of respondents reporting multiple conditions highlights the complexity and overlap of these learning disabilities.

Table 5: Common Knowledge of SLDs Among Teachers

		Responses		percentage of Cases
	Understanding SLDS	N	Percent	
	Dyslexia	71	29.7%	94.7%
	Dysgraphia	12	5.0%	16.0%
	Dyscalculia	37	15.5%	49.3%
	Attention Deficit Hyperactivity Disorder (ADHD),	30	12.6%	40.0%
	Autism Spectrum Disorder (ASD)	24	10.0%	32.0%
	Intellectual Disability	62	25.9%	82.7%
	Other	3	1.3%	4.0%
Total Number of responses		**239**	**100.0%**	318.7%

Source: Field Data, 2023.

Dyslexia, a well recognised SLD, emerges as a prominent concern, reported by 71 respondents. This condition accounts for a substantial portion of SLD cases, representing a staggering 94.7% of those afflicted by SLD. This is also backed by literature that states Dyslexia is the most commonly occurring SLD (Fletcher et al., 2002). Dysgraphia, which affects the handwriting making it illegible, though a smaller group with only 12 respondents, still maintains its significance by contributing to 16% of the SLD cases, albeit to a lesser extent than dyslexia.

Dyscalculia, which is majorly a difficulty in processing and performing numeracy concepts is another SLD, represented by 37 respondents, signifying a noteworthy 49.3% of SLD cases. It occupies a substantial presence within the SLD spectrum. Attention Deficit Hyperactivity Disorder (ADHD), often intertwined with SLDs, emerges with 30 respondents, making up 40% of the SLD cases. Its prevalence highlights its relevance in the context of learning disabilities.

Autism Spectrum Disorder (ASD), while not primarily categorised as an SLD, garners attention with 24 respondents, contributing to 32% of SLD cases. This underscores its significant presence within this demographic. Intellectual Disability emerges as a condition of notable concern, with 62 respondents, representing a substantial proportion of SLD cases at 82.7%.

It is important to note these were multiple responses and respondents had the leeway to choose as more than one type of SLDs they have encountered in their teaching careers.

In the context of SLD identification as per the Table 6:

Table 6: How Teachers Identify SLDs in Class

		Responses		Percent of Cases
		N	Percent	
Identification of SLDS	Teacher observation	69	48.6%	92.0%
	Standardised assessments	68	47.9%	90.7%
	Parent/guardian input	2	1.4%	2.7%
	Other	3	2.1%	4.0%
Total		142	100.0%	189.3%

Source: Field data, 2023.

Teacher observation is the most commonly used method to identify SLD learners, while a standardised assessment follows closely. Parent/guardian input is the least common method. Other methods, which are not specified in the table, are used in 3 cases comprising 2.1% of cases. The degree to which teachers are confident in their ability to spot students in their class who have particular learning impairments: 57.3% of teachers said they felt "Very Confident" about their skills. Of the educators surveyed, 42.7% said they felt "Somewhat Confident."

Figure 1: Confidence in Identifying SLDs Learners

Ability to spot students with particular learning impairments in class

43%

57%

■ Very Confident   ■ Somewhat confident
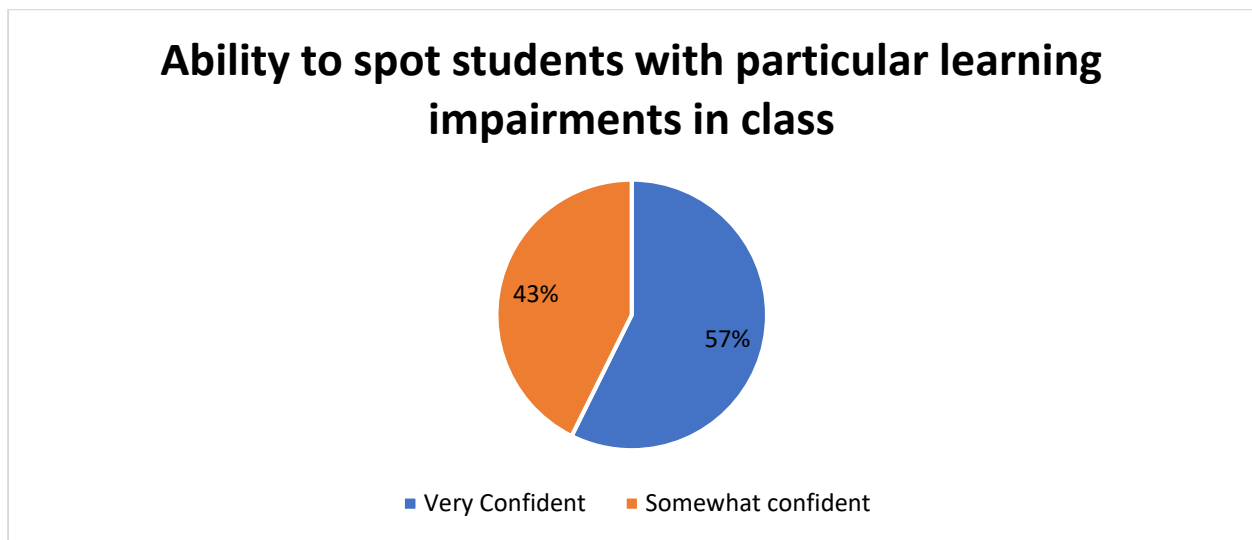
Source: Field data, 2023.

The most prominent challenge in support for SLD learners in class is limited resources which most respondents explained to be human resources, limited time and material resources like books and assistive technology. The need for training on SNE and Inclusive Education and professional development especially on improving pedagogy to meet all learner needs was the second biggest challenge. The latter challenge of training and professional development culminates to the problem on difficulty in differentiating instructions for SLD learners. The "other" challenges which make up a significant 7% are; learner absenteeism, lack of cooperation from parents and administration, too much workload due to large class sizes, lack of emphasis on supporting the learner and underage children with knowledge gap. The above is supported in literature by Deshler (2001; 2009 & 1981) & Downing (2003), which highlights the importance of provision of appropriate instructional methods, resources, professional development and support systems for SLD learners support.

Figure 2: Challenges in Identifying SLD learners in the Classroom

Challenges in Supporting SLD Learners in Class.

- Limited resources and materials
- Lack of training and professional development opportunities
- Difficulty identifying learners with SLDs
- Difficulty differentiating instruction for learners with different needs
- Difficulty managing behavior in the classroom
- Other

37%
26%
6%
21%
3%
7%
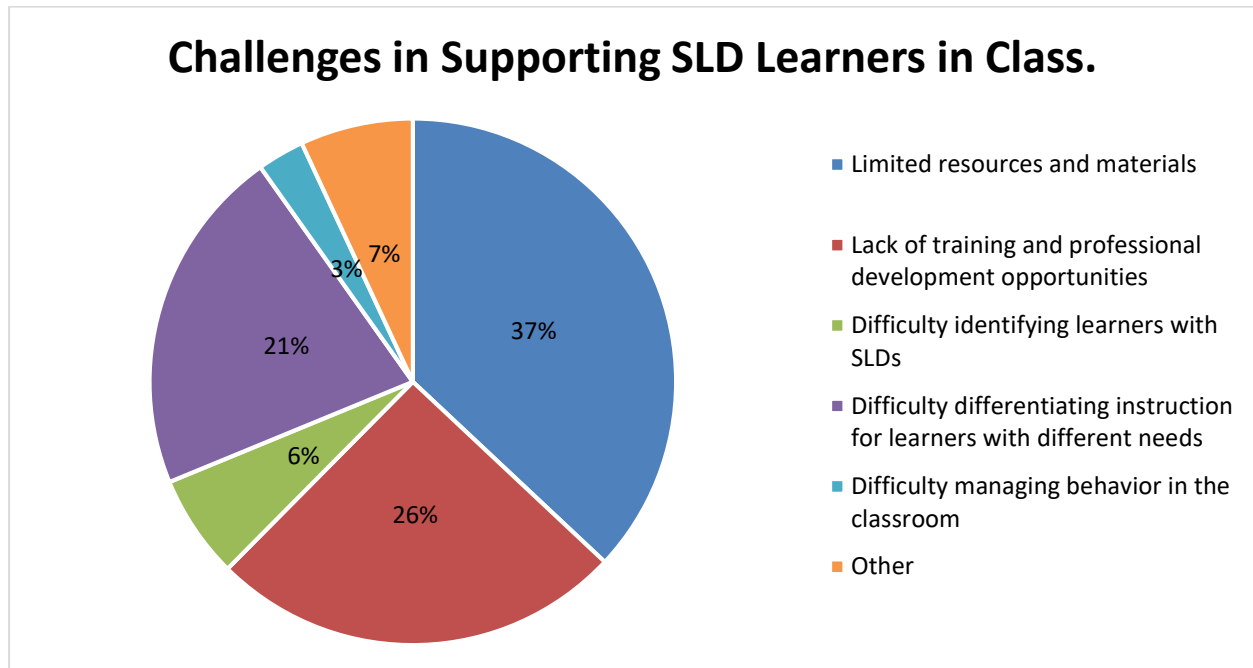
Source: Field data, 2023.

Based on cross tabulation, the challenges in support and inclusion are distributed among respondents with different academic qualifications:

The challenge of "Limited resources and materials" was faced by 84.0% of respondents with P1, 89.7% of those with a Diploma, 81.3% of those with a University degree, and 80.0% of those with a Masters. The challenge of "Lack of training and professional development opportunities" was faced by 64.0% of respondents with P1, 62.1% of those with a Diploma, 56.3% of those with a University degree, and 20.0% of those with a Masters. 12.0% of respondents with P1, 13.8% of those with a Diploma, 25.0% of those with a University degree, and 0.0% of those with a Masters faced the challenge of Difficulty identifying learners with SLDs.

The challenge of Difficulty managing behaviour in the classroom was faced by 0.0% of respondents with P1, 6.9% of those with a Diploma, 12.5% of those with a University degree, and 20.0% of those with a Masters. The challenge of "Other" was faced by 12.0% of respondents with P1, 13.8% of those with a Diploma, 12.5% of those with a University degree, and 60.0% of those with a Masters. The above data provides insights into how different challenges in support and inclusion vary across different levels of academic qualification

4.4 Classroom Practices

For a school to be inclusive and effective, classroom practices including personalised instruction, working with special education, and having enough resources to accommodate learners with specific learning disabilities (SLD) are crucial. All pupils, even those without learning difficulties, benefit academically and socially from these practices. Table 7 shows the different ways teachers differentiate instructions to meet the needs of learners with SLDs.

Table 7: Differentiating Instruction to meet the needs of SLD learners

		N	Percent
Differentiate instruction for SLD	Visual aids (e.g., charts, diagrams, pictures)	**72**	**28.30%**
	Manipulatives (e.g., blocks, counters, tactile materials)	58	22.80%
	Assistive technology (e.g., text-to-speech, speech-to-text)	10	3.90%
	Flexible grouping (e.g., small group instruction, peer tutoring)	64	25.20%
	Multisensory instruction (e.g., kinesthetic learning, auditory learning)	3	1.20%
	Explicit instruction (e.g., breaking down tasks into small steps)	35	13.80%
	By offering opportunities for student choice and autonomy	7	2.80%
	Other	5	2.00%
Total		254	100.00%

Source: Field data, 2023.

Visual aids are a highly utilised method, with nearly all respondents (96.0%) indicating they employ them to differentiate instruction for SLD students. The use of *manipulatives* is also common, with 77.3% of respondents incorporating them into instruction for SLD students. While a smaller percentage of respondents (13.3%) employ *assistive technology*, it is still a noteworthy

method for differentiation. *Flexible grouping* is widely used by 85.3% of respondents to cater to the needs of SLD students. *Multisensory instruction* is employed by a smaller percentage (4.0%) of respondents. Nearly half (46.7%) of the respondents utilize explicit instruction techniques for SLD students. A smaller portion (9.3%) of respondents incorporates *student choice and autonomy* into their instructional methods. Some respondents (6.7%) use other methods for differentiation, which include remedial, roleplaying, songs, field excursions and practical.

Table 8: Biggest challenges to differentiating instructions

			Q2. Please select your role:					
			Class Teacher	Head teacher	Retired Teacher	Teacher Trainer	Teacher Trainee	Total
Biggest Challenges in Differentiation	Limited resources (e.g., time, materials)	Count	49	6	4	4	6	69
		% within $Q16MR	71.0%	8.7%	5.8%	5.8%	8.7%	
	Lack of training or support	Count	17	2	1	2	1	23
		% within $Q16MR	73.9%	8.7%	4.3%	8.7%	4.3%	
	Student resistance	Count	19	2	0	0	2	23
		% within $Q16MR	82.6%	8.7%	0.0%	0.0%	8.7%	
	Large class size	Count	22	3	0	2	1	28
		% within $Q16MR	78.6%	10.7%	0.0%	7.1%	3.6%	
	Other	Count	3	2	2	3	2	12
		% within $Q16MR	25.0%	16.7%	16.7%	25.0%	16.7%	
Total		Count	110	15	7	11	12	155

Source: Field Data, 2023.

The cross tabulation on Table 8 provided displays responses from different teacher roles regarding the biggest challenges in differentiation.

Limited resources were acknowledged as a difficulty in differentiation by 92.5% of class teachers. The class teachers cited this challenge was mainly due to a shortage of time due to limited human resources and materials. Limited resources were identified as a challenge by 85.7% of principals. They are concerned about resource restrictions in the same way that teachers are. The challenge was also cited by 80.0% of retired instructors. Even retired instructors recognize the issue. 100% of teacher educators identified low resources as a challenge. This demonstrates that teacher educators are well aware of the limits that classroom teachers encounter. Limited resources were identified as a challenge by 100.0% of teacher trainees, indicating that they are learning about these limits during their training. They identified insufficient resources as a challenge, showing that they are becoming more aware of these limits.

Lack of training or support: 32.1% of teachers reported that a lack of training or assistance was a challenge. This shows that some teachers may not feel fully prepared for differentiation. A lack of training or support was cited as a challenge by 28.6% of principals. This emphasizes the importance of continual professional development for school leaders. 20.0% of retiring teachers reported this challenge. Retired teachers may have reflected on the help they received during their careers. 50.0% of teacher trainers reported also cited the challenge. This could be especially concerning if they are active in training others. 16.7% of teacher trainees reported a lack of training or support. This shows that some teacher candidates may believe they are not receiving appropriate preparation.

Student resistance: 35.8% of class teachers mentioned student resistance as a challenge. This indicates that class teachers have to deal with resistance from students when trying to implement differentiated instruction. It seems that head teachers also encounter this challenge when implementing differentiation since 28.6% mentioned the challenge. None of the retired teachers and teacher trainers mentioned student resistance, suggesting this may be less relevant to them. 33.3% of teacher trainees mentioned student resistance, even as trainees.

Large class size: 41.5% of class teachers identified large class size as a challenge, which can make it harder to provide individualised instruction. 42.9% of head teachers identified this challenge, this suggests that head teachers are aware of the impact of class size on differentiation. None of the

retired teachers identified large class size as a challenge. 50.0% of teacher trainers identified large class size as a challenge. This is a significant concern for teacher trainers as they prepare future educators. 16.7% of teacher trainees identified large class size as a challenge. Large class size is also found to be a challenge in literature, which can hinder differentiation especially when teachers are not adequately prepared.
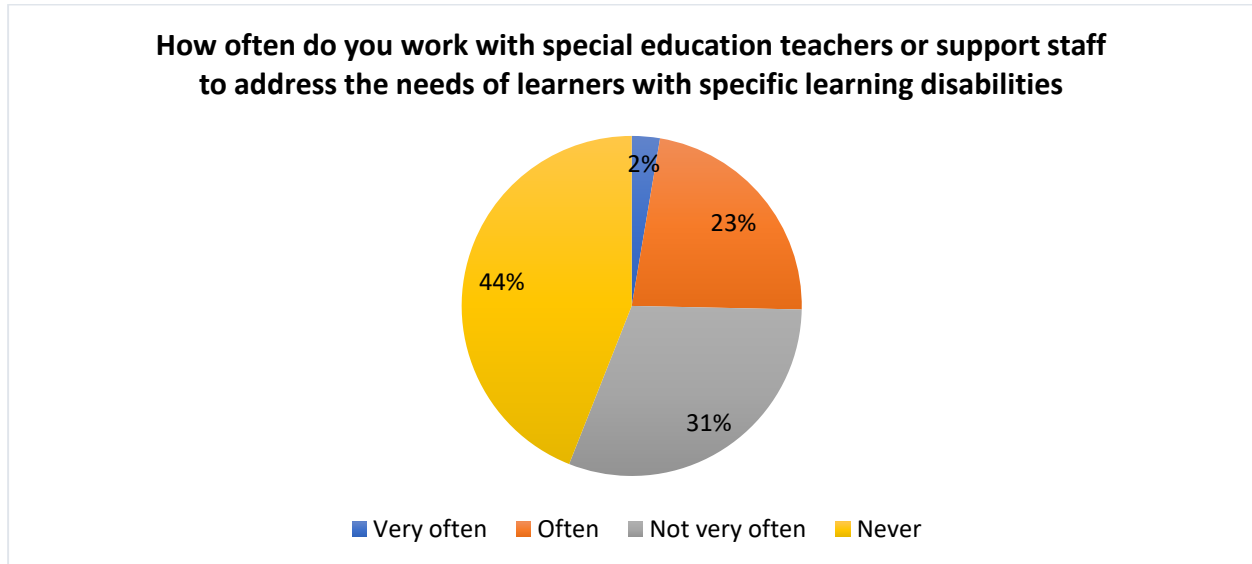
Other: These other challenges included: Attitude of teachers for the subject taught, lack of preparation to teach the various subjects and diverse needs of learners in a big classroom. 5.7% of class teachers mentioned these challenges, which could vary and might require further investigation. 28.6% of head teachers mentioned "other" challenges, indicating a diverse set of issues that head teachers face. 40.0% of retired mentioned "other" challenges, indicating a variety of issues that retired teachers might have faced. 75.0% of teacher trainers mentioned "other" challenges, suggesting a wide range of issues in their role. 33.3% of teacher trainees mentioned "other" challenges, reflecting the diversity of experiences during teacher training.

Limited resources and large class sizes are common challenges across all teacher roles. However, the specific concerns and experiences vary, with teacher trainers and teacher trainees showing a high awareness of these challenges. The need for training and support is also a recurring theme, and some teachers, such as retired teachers, might have different perspectives due to their career stage. One of the retired teachers explained that:

> *"A born-teacher has the capacity to grow any learner. A teacher should set realistic goals for the learners as well as create a good relationship and appreciate their effort no matter how small. Approach the learner with love and correct them in love because words are powerful, they make or break learner and at the end they will cooperate".*

In order to meet the requirements of students with particular learning difficulties, the majority of respondents (44.0%) never work with special education instructors or support personnel, while a smaller percentage do so occasionally (22.7%), not very frequently (30.7%), or frequently (2.7%). This is supported by literature on the need for collaboration between education professionals and school management to meet learner needs (Al-Natour, Amr, Al-Zboon & Alkhamra, 2015).

Figure 3: Working with special education teachers or support staff to address the needs of SLD learners

How often do you work with special education teachers or support staff to address the needs of learners with specific learning disabilities

2%
23%
44%
31%

■ Very often ■ Often ■ Not very often ■ Never

Source: Field Data, 2023.

As per Figure 4, the respondents' had a multiple choice on the resources they found most helpful in supporting SLD learners in class, majority of the respondents used preferential seating while the least used was assistive technologies.

Figure 4: Resources or materials most helpful in supporting SLD learners

Resources teachers find useful in supporting SLD learners

55   73.3%
57   76.0%
12   16.0%
1   1.3%
62   82.7%
54   72.0%
5   6.7%

Extended time for assignments or assessments
Reduced workload or modified assignments
Use of assistive technology (e.g. text-to-speech, speech-to-text, calculators)
Use of a scribe or note-taker
Preferential seating or physical accommodations (e.g., standing desk, fidget tools)
Simplified or clarified instructions
Other

Source: Field Data, 2023.

According to retired teachers, their most preferred resource was the preferential seating to facilitate peer-tutoring and group work. They also emphasised on methods that are learner friendly. The following are some sentiments from one of the key informants (KII 4), a retired teacher:

> *"Peer tutoring is very important because children know each other."*

> *"Experienced and good teachers do not only rely on methodologies taught in colleges to support the different learners in class."*

4.5 School support and Policies

The following were the responses on whether the schools had specific policies and guidelines in place to support learners with SLDs.

IEPs are crucial for assisting students with SLD, who account for 40.0% of all instances, according to 30 respondents (12.6% of the total responses). IEPs are widely acknowledged as an essential tool for adjusting schooling to meet the requirements of each student and are encouraged by the school management in various schools despite the challenges of formulation and implementation.

Early detection techniques for students with SLD: Only 5 respondents (2.1% of all responses) deemed these steps essential, accounting for 6.7% of all cases. Early screening and assessments are crucial, but they do not seem to get as much attention. Most of the respondents cited lack of collaboration between the various stakeholders especially parents as a key barrier.

Professionals who are qualified: In a similar vein, 5 respondents (2.1% of all responses) emphasised the significance of professionals who are qualified, such as special education teachers and school psychologists. This amounts to 6.7% of all the cases. Most schools did not have qualified professionals to support in inclusive education strategies. As one of the respondents who was a school head cited the following which seemed to resonate with other responses from majority of respondents:

> *"Teachers develop their own IEPs that do not include the use of SNE personnel. Most of the times since learners do not go for assessments we look for solutions that are school-based."*

Professional development options for teachers and staff are important for helping them understand SLD and successful instructional strategies, according to 39 respondents (16.4% of the total

replies). Some schools had programmes to strengthen teacher development like peer support among teachers. This response represented 52.0% of all cases, highlighting the importance of ongoing teacher preparation. Accommodations and adjustments: 57 respondents (23.9% of the total replies), or the majority, thought it was essential to offer suitable accommodations and modifications to students with SLD. This response, which accounts for 76.0% of all cases, shows that personalised learning strategies are strongly supported.

30 respondents, or 12.6% of all respondents highlighted the importance of cooperative learning and support within inclusive classroom environments, and this represents 40.0% of all situations. Collaboration and open communication: Sixteen respondents, or 6.7% of the total, mentioned the importance of support personnel encouraging collaboration and open communication between students, parents, and professionals. 21.3% of all cases are accounted for by this answer.

Plans for transition: 32 respondents, or 13.4% of all respondents, acknowledged the importance of transition strategies learners with SLD when they move between grade levels, accounting for 42.7% of all cases. Engagement of parents/guardians: 19 respondents (8.0% of all replies) agreed that it is crucial to involve parents/guardians in the educational process by giving them access to resources, information, and chances to work together. 25.3% of the total cases are represented by this response. Although majority of the respondents cited parental involvement as the biggest challenge in making sure learners with SLD receive the support they need both at home and at school. A repeated response from the respondents was as follows:

> *"Few parents want to know the progress of their children and majority do not show interest."*

Other: Only four respondents, or 1.7% of all responses, deemed "other" to be important, accounting for 5.3% of all cases. The responses were; admitting learners with lower grades to the next level, benchmark with other schools and parents supporting teachers in giving tutoring opportunity for their children. Schools to support all learners in achieving their goals use these tools. Only one respondent (0.4% of all responses) chose "none of the above," accounting for 1.3% of all occurrences, indicating that there may be discrepancies between respondent preferences and policy. Salaam & Qabeel (2019) noted that insufficient training, resources and administrative support were major obstacles to helping in inclusion of SLD learners. The school management plays a crucial role in leading the way for inclusive practices that benefit all learners.

On the level of support and resources provided by the school to teachers and learners in supporting SLD learners, the majority of respondents (around 57.3%) ranked the support and resources provided by their schools for students with particular learning difficulties as "very good" or "good." However, a sizable majority (30.7%) indicated that they had no opinion. The proportions of respondents who thought the support was "not good" or said they had "none" at their disposal were lower. These comments imply varied degrees of satisfaction with the assistance and materials offered by their schools in meeting the requirements of students with certain learning difficulties.

Figure 5: Level of support and resources by school administration
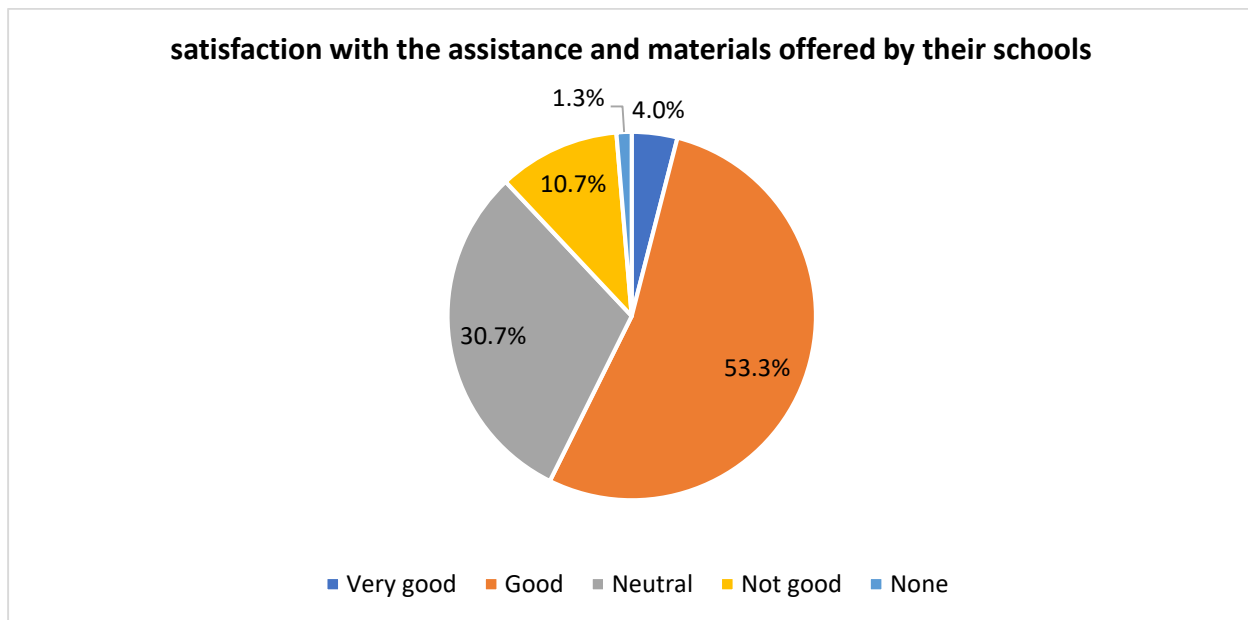
Source: Field Data, 2023.

Almost all respondents (92.0%), according to the survey, are familiar with the phrase "Individualised Education Plan" (IEP). However, a small percentage (8.0%) claimed they were unaware of IEP. This shows that the respondents to the study had a rather high degree of knowledge and familiarity with IEP. According to the survey results, sizable portions of respondents (26.7%) have students with Individualised Education Plans (IEPs) in their classes, while the majority (73.3%) does not. This indicates that throughout the educational contexts that the survey participants represented, there are varied degrees of inclusion and support for learners using IEPs.
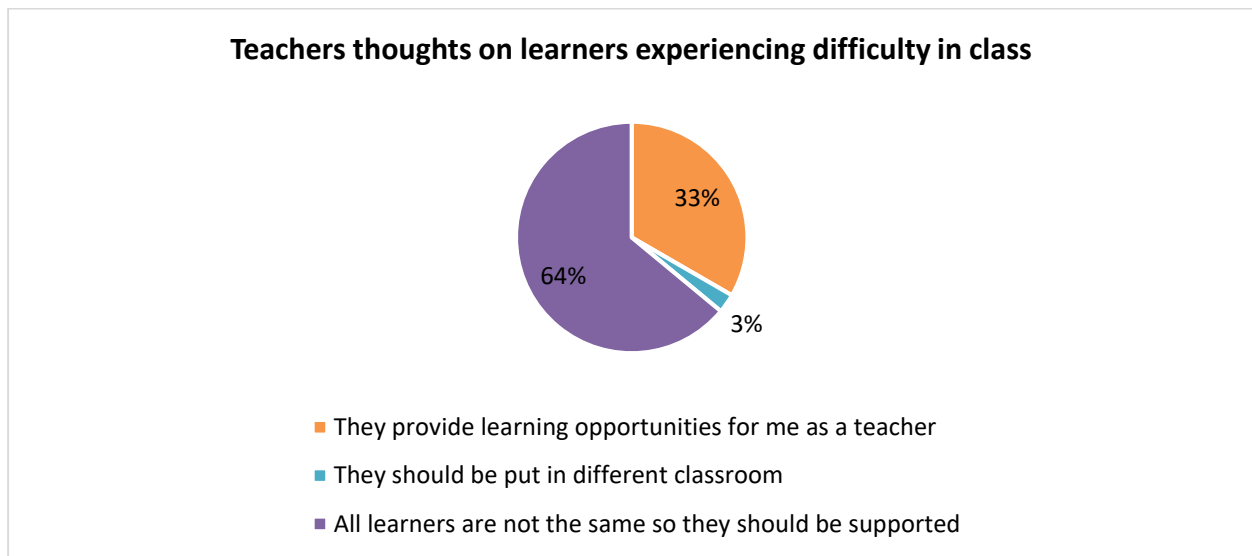
4.6 Personal Attitudes and Beliefs

The study results indicated that, most participants (76.0%) agree that inclusive education is a process that attends to the various needs of all students through inclusive practices. A lesser

percentage of participants (24.0%) support the idea that inclusive education focuses largely on students who were previously excluded from regular classrooms. These findings indicate varying perceptions and comprehensions of the inclusive idea.

*'Create a relationship with the children and show them that they are not as stupid as people think. Approach children in love and humility as words are powerful.'' (*KII 5).

According to the survey results, the overwhelming majority of respondents (64.0%) believe that students who are having a hard time in class should be supported and given accommodations. A smaller group (33.3%) believes that these students offer teachers valuable learning chances. Only a tiny minority (2.7%) supported putting such students in separate classrooms. These findings indicate that there is widespread support for meeting the various needs of learners who are struggling in the classroom. Bayhad & Kesici (2019) found that educators who had a pro-SLD mindset were better equipped to support and integrate with SLD learners.

Figure 6: Thoughts on Learners experiencing difficulty in class

Teachers thoughts on learners experiencing difficulty in class

- 33%
- 64%
- 3%

■ They provide learning opportunities for me as a teacher
■ They should be put in different classroom
■ All learners are not the same so they should be supported

Source: Field Data, 2023.

With space for consistency improvement, the graph in Figure 7 offers insightful information on the efforts taken by teachers to involve children with SLDs in classroom activities.

Figure 7: Provision for opportunities for SLD learners to engage in class discussions
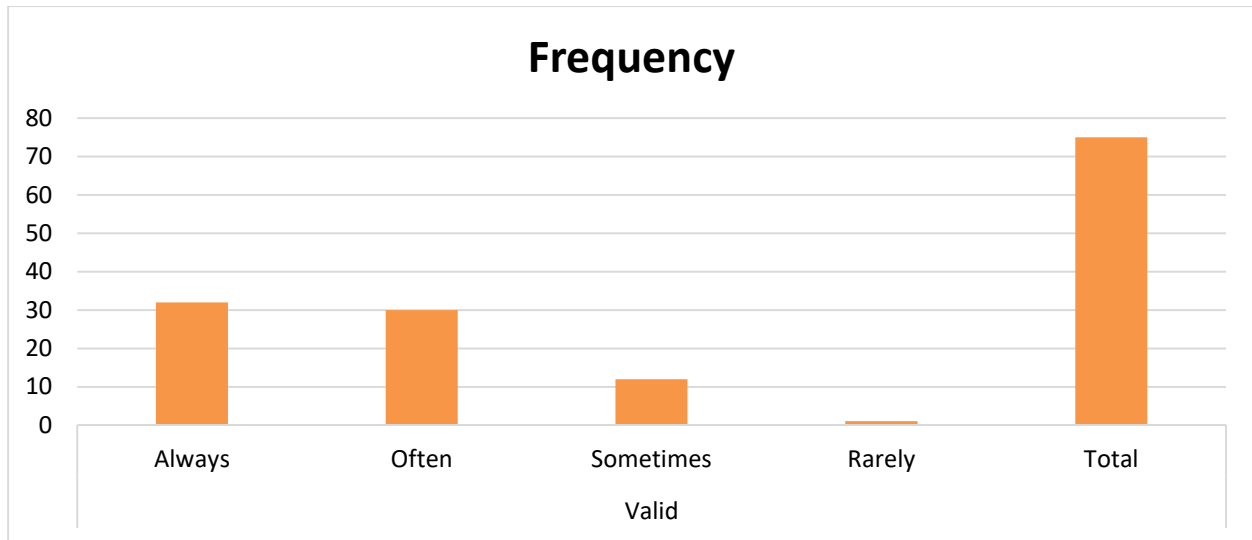
Frequency

Source: Field Data, 2023.

The majority of respondents (82.7%) said they always or frequently give SLD students the chance to participate in class discussions and activities, which is a sign positive sign for inclusion. However, a lesser percentage (16.0%) only seldom offers these possibilities, suggesting room for growth. Active exclusion is not widespread, as only a very tiny percentage (1.3%) reported doing it only occasionally.

The most common challenges experienced by learners with SLDs in school are as follows:

Stigma and misunderstanding: This difficulty was found to be the most common. This difficulty has a considerable influence on these learners, as seen by the fact that it accounts for 92.0% of all cases reported. Lack of proper accommodations and adaptations in the classroom 13.8% of respondents, on average, reported this difficulty. Although it is concerning, it only accounts for 49.3% of cases, showing that it affects some learners significantly but is not as pervasive as stigma and misunderstanding. Social and Emotional Difficulties: A substantial percentage of students (82.7% of instances) reported having social and emotional difficulties, which were cited as a challenge by 23.0% of respondents. This shows that a key component of learners with SLD's education should be addressing their social and emotional well-being. Challenges with executive functioning, such as planning, organizing, initiating tasks, self-monitoring, and impulse control, were cited by 6.3% of respondents and accounted for 22.7% of the instances, suggesting that they are a problem that SLD students frequently encounter. Slower processing speed: 20.0% of cases were affected by this problem, which was mentioned as an issue by 5.6% of respondents. This

shows that even while this challenge is less frequently acknowledged, it nevertheless has a big influence on particular students.

Executive functioning issues are similar to attention and focus problems, which were mentioned by 6.3% of respondents and accounted for 22.7% of instances. Information acquisition and retention issues: This problem was mentioned by 19.3% of respondents, making it one of the most common problems. It is significant in the context of the educational obstacles faced by SLD learners because it affects 69.3% of all instances. The majority of respondents (97.3%) according to Fig. 4.8 said they frequently alter or adjust tasks and tests to accommodate students with SLDs. This demonstrates a positive dedication to using inclusive teaching methods and making sure that these learners have a supportive and fair learning environment. Only 2.7% of educators said they rarely made these modifications, showing that the majority of them are actively attempting to meet the requirements of students with SLDs in their classes.

Figure 8: Modification of Assignments for SLD learners.
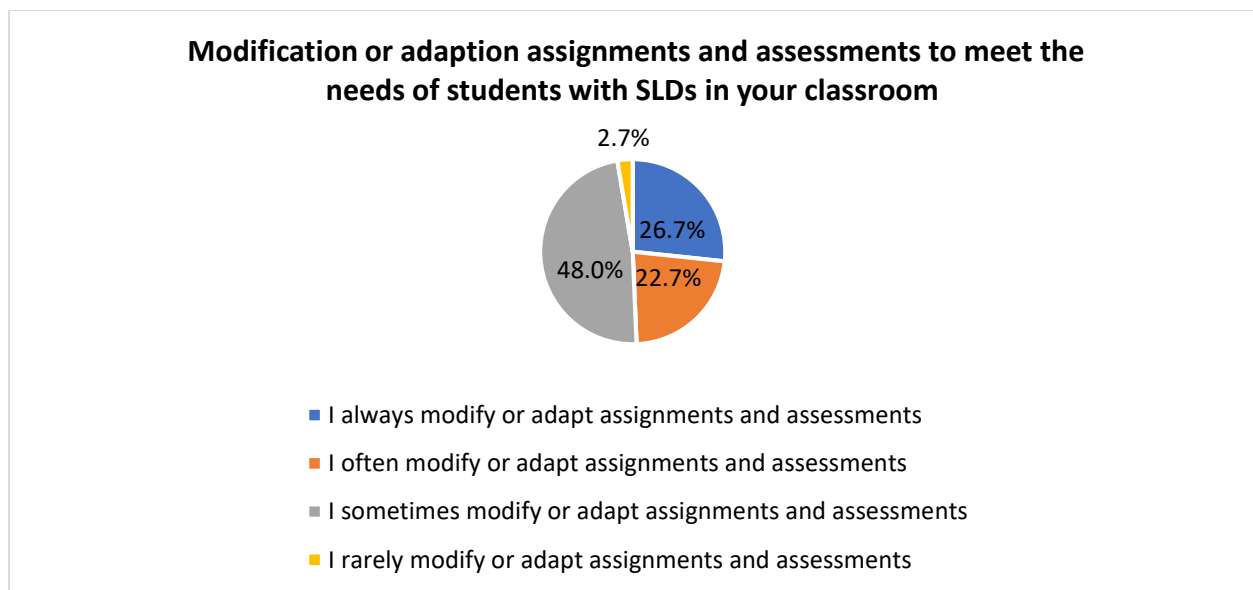
Source: Field Data, 2023.

Inclusion of students with SLDs in general education classrooms is viewed as "very important" by a resounding majority of respondents (93.3%), according to the results. This demonstrates a strong commitment to inclusive educational practices and ensuring that students with SLDs have equal access to the general education curriculum. Only a tiny minority (1.3%) said it was "not very important," highlighting the widespread support for inclusiveness among educators.

4.7 Collaboration and Communication

The results show that schools use a variety of cooperative strategies, including peer tutoring, professional development, co-teaching, IEP preparation, and data-driven decision-making, to serve learners with SLDs. These collaborative endeavors are intended to offer a thorough and inclusive approach to addressing the varied needs of SLD learners, showing the dedication of educators to effectively support these children. Clark (2018) found that teamwork greatly improves readiness to serve SLD learners in inclusive settings.
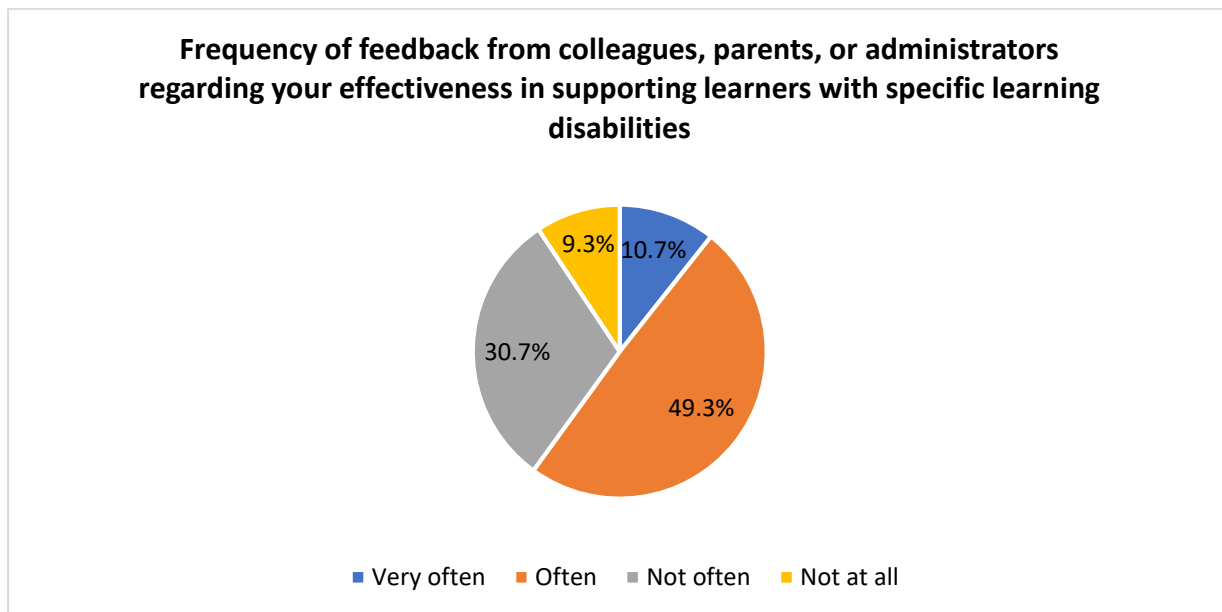
About 13.1% of respondents said they regularly reflect on and discuss instructional strategies with colleagues. This approach is beneficial for SLD students' professional development and advancement. Attending multidisciplinary team meetings with other specialists, such as psychologists, occupational therapists, speech-language pathologists, and special education teachers (1.3%) was not popular. Using this approach requires crucial professional teamwork to meet the demands of SLD students. A substantial collaborative strategy, peer tutoring was mentioned by 18.4% of respondents. This method encourages participation in the learning process and peer assistance. Bal & Kocak (2018) also encourage peer tutoring as it encourages knowledge sharing and learning methods of support that work.

 Collaboration on creating and reviewing Individualized Education Programs (IEPs), which is essential for adjusting lesson plans to the specific requirements of SLD learners, is practiced by about 7.8% of respondents. Despite being stated by a lower proportion of respondents (2.3%), using data to guide instructional decisions is a technique based on evidence for changing teaching methods. 13.6% of respondents mentioned professional development, highlighting the value of continued teacher preparation to effectively support SLD students.

A dedication to collaborative instruction that benefits SLD students was shown by 14.6% of respondents who highlighted co-teaching methods especially team-teaching was a widely used method. The sharing of effective instructional strategies and interventions, which facilitates knowledge sharing among educators, was noted by over 18% of respondents. 11.1% of respondents emphasised collaborative planning, underscoring the need of creating inclusive lesson plans and accommodations.

The findings on feedback from colleagues, parents and the administration reveal a range of frequency, with the majority of respondents (49.3%) saying they get feedback frequently. However, a sizeable fraction (30.7%) of people receives feedback seldom, while only 10.7% of people do so frequently. A small percentage (9.3%) of respondents said they got no feedback at all. These findings demonstrate the variety of experiences that educators have when it comes to getting feedback on how well they help students with SLDs. Feedback in most cases is offered during class meetings between teacher and parent or case-by-case basis.

Figure 9: Feedback from colleagues, parents and administration

Frequency of feedback from colleagues, parents, or administrators regarding your effectiveness in supporting learners with specific learning disabilities

- Very often
- Often
- Not often
- Not at all

Source: Field Data, 2023.

4.8 Professional Development and Support

According to the findings, a sizable percentage of respondents (32.0%) had taken part in professional development or training aimed specifically at helping students with SLDs in inclusive settings. But the vast majority (68.0%) lacks this specialised education. These results imply that, despite some educators having received focused training in this area, more extensive training and support are still required to improve the teaching of students with SLDs in inclusive classrooms. The results of the study show that teachers' levels of professional development and training for assisting students with particular learning difficulties in inclusive classrooms vary widely. Comparing class teachers to other roles like head teachers and teacher trainers, who are equally important in inclusive education, it appears that class teachers receive less training. This shows that

in order to guarantee that all teachers are equipped to serve students with particular learning difficulties in inclusive settings, there is a need for more extensive training activities. This is consistent with the studies by Lembke et.al. (2018) & El Keshky, Mogeda & Nasreen (2018) who have found that professional development programmes and teacher training programmes fall short in offering sufficient courses for SLD support.

Table 9: A cross tabulation of teacher roles vs training on SLDs

	Have Received Training	**Have Not Received Training**	**Total**
Class Teacher	15	38	53
Head Teacher	3	4	7
Retired Teacher	1	4	5
Teacher Trainer	2	2	4
Teacher Trainee	3	3	6
Total	24	51	75

Source: Field data, 2023.

These findings imply that different roles within the education industry have varying degrees of access to specialised training in inclusive educational practices.

Table 10: Professional development Vs professional role

		Q2. Please select your role:					Total	
		Class Teacher	Head teacher	Retired Teacher	Teacher Trainer	Teacher Trainee		
Q31. Have you received any professional development or training specific to supporting learners with specific learning	Yes	15	3	1	2	3	24	
	No	38	4	4	2	3	51	
Total		53	7	5	4	6	75	

Source: Field data, 2023.

To effectively fulfill the requirements of all learners, professional development is crucial, according to all 75 respondents (100% of the total). This unanimity demonstrates the widespread agreement among educators that continuing professional development is essential for giving children the support they need. According to feedback from majority of the respondents, there needs to be an overhaul of professional development course to give teachers mandatory courses classroom management resources and Diploma in Special Needs Education (SNE) and training.

Table 11: Importance of Professional Development.

Q32. Do you believe professional development is important to meet the needs of all learners effectively?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	75	100.0	100.0	100.0

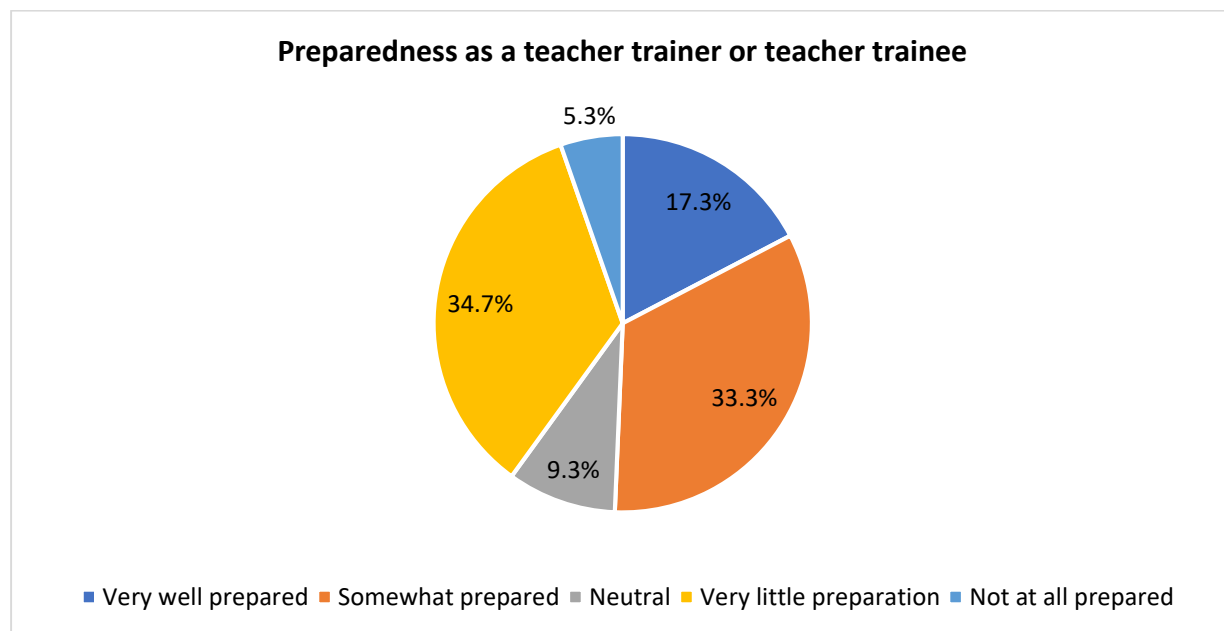*Source: Field Data, 2023.*

The majority of educators (68.0%) believe that their school professional growth programmes have improved their capacity to help SLD students to a "somewhat" satisfactory level. Additionally, a sizable percentage (22.7%) believes these possibilities are "very effective." While a small percentage of respondents (9.3%) did not think the opportunities were useful, general opinion

points to a favorable evaluation of the influence of professional development on teachers' capacity to support SLD students.

4.9 Teacher Training Programmes

The results of this study show that all respondents have a wide variety of opinions about how adequate their teacher training programmes are. While a sizable majority reports feeling at least somewhat prepared, a sizable proportion worries that their education did not adequately educate them to meet the demands of SLD students. The extremes of confidence in their training programmes are represented by the categories "very well prepared" and "not at all prepared." These results highlight the need for continual teacher- training programme review and improvement in order to better prepare teachers to help SLD students in inclusive classrooms.

Figure 10: Teacher training programmes adequacy in preparing teachers for SLD learners

Source: Field data, 2023.

The results on the extent to which SNE and Inclusive Education courses should be made mandatory show that the majority of respondents (88.0%) strongly favor mandating Special Needs Education and Inclusive Education courses. Only a very small percentage (1.3%) has a relatively positive impression regarding mandatory courses, while a smaller percentage (10.7%) agrees with the idea to a lesser extent. These results point to a widespread perception that these courses are essential for

educators and need to be required in order to better prepare them to help students with various learning needs.

Teacher training programmes are perceived to address the importance of fostering a positive and inclusive classroom culture. A majority of respondents, including 16.0%, believe these programmes do so well. However, 14.7% of respondents believe they do not address this aspect effectively. A small fraction, 1.3%, thinks that these programmes do not adequately address this aspect. Overall, the perceptions of these programmes vary, with some expressing confidence in their effectiveness.

4.10 Reflection and Self-Evaluation

To ensure educators are inclusive and fulfill the needs of students with SLDs, a large percentage (90.7%) reflect on their instructional strategies and practices. Sixty-four percent of respondents (64%) indicate "often," while only 26.7% indicate "very often." Only 9.3% of teachers said they did not frequently reflect on their teaching methods and techniques. The dedication of educators to support inclusivity in their teaching strategies is highlighted by these findings.

The respondents in the study were asked about what they believed were key qualities and skillsets a teacher ought to possess to be better prepared for inclusive classrooms. The responses were as follows: Knowledge of Specific Learning Disabilities: About 10.5% of respondents think that teachers working with students who have SLDs need to have knowledge of specific learning disabilities. This information aids instructors in comprehending the special requirements and difficulties faced by these pupils. Assessment skills: 7.9% of respondents said assessment skills were crucial. These abilities are crucial for precisely recognizing and assessing the learning requirements of SLD students. To meet a variety of student needs, effective teachers differentiate their instruction: One of the most important qualities for instructors, according to 10.1% of survey participants, is their ability to apply differentiated instruction to meet students' varied learning requirements. This strategy is essential for personalizing instruction for SLD pupils.

Patience and empathy: 10.5% of respondents viewed patience and empathy as vital traits. These characteristics are essential for fostering a helpful and understanding learning environment in the classroom for SLD students. Knowledge of Assistive Technology: According to 6.1% of survey participants, knowledge of assistive technology is crucial. This ability enables teachers to give SLD

students the resources and skills they need. Positive Behaviour Management: Of the responders, 8.7% emphasised having good behaviour management abilities. These abilities are crucial for fostering a supportive learning environment in the classroom and dealing with behavioural issues.

Strong Communication Skills: 7.7% of participants placed high value on having strong communication skills. Building trusting relationships with SLD students and their families requires effective communication. Continuous Professional Development: About 10.1% of respondents emphasized the value of continuing education. Maintaining current with educational best practices is essential, especially when working with students with learning disabilities (SLD).

Flexibility and Adaptability: 9.2% of respondents cited flexibility and adaptability as significant traits. These characteristics give teachers the flexibility to modify their methods and strategies to suit the changing needs of SLD students. Collaboration and Teamwork: 9.6% of respondents highlighted the importance of collaboration and teamwork skills. Providing comprehensive support to SLD students requires close cooperation with other educators, experts, and families.

Ability to successfully read, comprehend, and implement IEPs while modifying instruction to fit the requirements of each student: Similar numbers, or about 9.6%, think that being able to comprehend and use IEPs effectively is a crucial skill. This guarantees that instructional tactics are modified to fit the unique needs of learners with SLD.

The above findings are consistent with literature, which highlights these qualities of teachers in preparedness to include and support learners with SLD (Chege, Lydia & Juma, 2019).

It is also very important for learners to be involved in setting their learning goals and monitoring their progress (Lee et.al., 2009). Teachers use a variety of ways to get SLD students involved in goal setting. The most popular tactics include acknowledging accomplishments, setting up regular check-ins, and including self-reflection exercises. A smaller proportion chooses tactics and adjustments with the students, and an even smaller proportion holds goal-setting sessions. By integrating SLD students in goal setting and progress tracking, these initiatives seek to empower and assist them throughout their educational journey. Below is a breakdown of the responses from the study data:

About 24.5% of respondents said they regularly engage in self-reflection activities. This entails encouraging students to evaluate their own work, pinpoint their strengths, identify their areas for

development, and create new objectives in light of their reflections. It encourages SLD students to participate actively in their studies. Around 11.4% of SLD students are involved in choosing the tactics and adjustments that are most effective for them. By allowing students to have a say in choosing the support they require, this strategy empowers them.

Conduct regular goal-setting conferences with the learner, their parents/guardians, and any pertinent instructors was the least often used technique. 4.8% of respondents, on average, said they used this strategy. These seminars offer a disciplined environment for establishing and tracking goals.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The aim of this study was to examine the level of teacher readiness for including and supporting learners with SLD in public schools from both pre-service and in-service teachers as well as perspectives from retired teachers. This chapter will present the summary of findings and recommendations from the study on teacher preparedness for inclusion and support for SLD learners in public schools.

5.2 Summary

It can be challenging for teachers to support students with specific learning disabilities (SLDs). Consequently, in order to help and integrate SLD learners into their classes, teachers need to be well prepared and have the materials, expertise, and information needed. Teachers must get training and skills in assessment, intervention, support, and inclusion of all learners if they are to effectively include all students, including those with special learning difficulties, in formal classrooms and school systems. School management systems should set up policies and practices that provide teachers and students with SLDs with extra assistance. Because there is inadequate infrastructure for managing special education requirements and chances for professional development, the majority of teachers in developing countries struggle to satisfy the needs of all students in mainstream classes.

This study aimed to assess the level of teacher preparedness from pre-service to in-service for the inclusion of learner with SLDs in public primary schools in Mutituni Zone, Machakos County. To realize the objectives, the study used purposive sampling so as to get the desired qualities of respondents to give the kind of information needed to answer the objectives. Primary data was collected via semi-structured interview guides and unstructured interview guides for key informants. These captured bot the qualitative and quantitative data. The quantitative data was analysed using SPSS software to generate descriptive statistics presented in frequencies, percentages and cross-tabulation. The qualitative data was organised in themes, coded and analyzed using SPSS.

The total number of respondents was 75 with 60% women and 40% men. Evidence from the data suggests that in-service teachers need more support in the form of professional development opportunities specific to supporting learners with SLDs. This is supported by data that 100% of the respondents believe in the importance of professional development in supporting all learners effectively in class. In-as-much as the current DPTE trainees are confident of their skills to meet the needs of diverse learners, they need continued professional development in classroom management practices.

Contrary to expectations, most teachers understand the different forms of SLDs and can identify learners confidently. This is supported by data that 57.7% were very confident and 42.7% somewhat confident in identifying SLDs. Majority of teachers are also keen in supporting learners with SLDs and they recon the learners give them learning opportunities and that all learners are not the same and they need support.

Limited resources and materials (37%), lack of training and professional development opportunities (26%), and difficulty in differentiating instructions (21%) are the most common and biggest challenges in supporting SLD learners in class. Teachers have various ways of differentiating instruction for learners to ensure they all benefit. The most common forms of differentiation used were; use of visual aids (charts, diagrams and pictures) 96%, manipulative (blocks, counters and tactile materials) 77%, flexible grouping ((peer tutoring, small grouping) 85%, explicit instruction (breaking down tasks into small steps) 46%, practical, field excursions, and songs. Majority of teachers (70%) do not work with special education teachers and other professionals to create IEPS and address needs of SLD learners, which compounds their difficulty in support and inclusion of these learners.

Most of the school support and policies are no fully anchored on national policy for learners with disabilities and hence lack adequate framework for support and implementation. There is a gap in collaboration and especially with parents and government on how to effectively support learners with difficulties. This hinders the support for early and proper identification and assessment of learning disabilities for impactful remediation.

Teachers are ready for up skilling and retooling to better support diverse learner needs. Proper support from the Ministry of Education in quality teacher professional development that is targeted

towards classroom management and sensitisation of the parents and community on SLDs will go a long way in achieving the goals of inclusion in education.

5.3 Conclusion

The objectives of the research and findings together suggest that in-service teachers lack sufficient preparation to include and assist students with specific learning disabilities. According to the data, the majority of respondents are aware of various learning disabilities even if they are unaware of the technical terms or methods for evaluation and intervention. Since the inclusive education module is now required, pre-service teachers Diploma in Primary Teacher Education (DPTE) under the Competency-Based Curriculum felt extremely well prepared to meet the requirements of diverse learners. However, they also hinted that their knowledge would get sharper as a result of ongoing professional development.

Meeting the requirements of all learners was hampered by a lack of resources, including restricted time owing to large class sizes, assistive devices, and human resources, according to the majority of in-service and pre-service teachers as well as retired teachers' feedback. For the majority of responders, the issue of parental participation was also a top worry. For most teachers, identifying students with special needs is not a difficulty; rather, the process of assessing them and providing support becomes difficult. Support for students with special needs will greatly benefit from the involvement of parents and educators.

IEPs were introduced as part of the competency-based curriculum, but most instructors lack the necessary follow-up and monitoring, as well as proper training, to implement them effectively. The majority of respondents felt that the current professional development did not adequately address the requirements of diverse learners. Lesson presentation for active learning, teacher preparedness to teach their subjects with suitable lesson planning, and eliminating the lecture approach to make it more learner centered are the options for teachers to address the demands of SLD learners in teacher training and professional development.

It is important to note that although most educators are eager to help students with all types of learning challenges, they lack the necessary resources. Though they have concerns about the students, the teachers require assistance from professional development programmes that emphasize learner-centered pedagogy and facilitation techniques.

5.4 Recommendations

Inclusion and support of all learners especially those with learning challenges is important for human capital development for the 21st century and makes sure to achieve Education for All guaranteeing equal opportunities. In order to achieve this, form the study's findings the following recommendations are made:

The first step in providing teachers with the skills and information needed to identify, assess, and remediate SLDs is ongoing professional development. Special needs education and inclusive education ought to be included in programmes for professional development and made compulsory for pre-service teachers. Quality Assurance in the Ministry of Education should monitor the Teachers Service Commission's involvement in guaranteeing the caliber of teacher professional development. Support from government policy is needed to integrate professional development programmes with the Kenyan Constitution and Vision 2030.

To ensure that all students have equal chances, the Sector Policy (2019) and other important stakeholders' recommendations should be put into practice and closely watched for complete compliance. To lessen teachers' workloads, the government should support school infrastructure and increase human resources. The establishment of learning support departments in public schools and ensuring that instructors who have completed SNE training are assigned to assist fellow educators in creating and overseeing IEPs should be looked into.

In order to support SLD learners, parental involvement and awareness are essential. For the sake of their children's future, parents should be informed about the problems affecting their children, such as learning challenges, and encouraged to help them by getting them assessed and working with the school. NGOs and CSOs can serve as entrance points for educating parents and raising community awareness. The county education CSOs ought to work more to ensure that inclusive education is provided in classrooms, so that the curriculum is implemented correctly, and that all students are progressing through it.

For future study the following topics can be looked into: Assessing the role of parents and other careers in including and supporting students with SLDs in fragile environments would be a promising subject. According to the study's findings, cooperation between the school and parents was crucial in helping SLD students, particularly in the Mutituni Zone. This type of research can

also provide information on tactics that non-governmental organisations and CSOs can employ to encourage parents and communities to recognize learning disabilities and to manage the associated opportunities and problems.

The second recommended study would be on: The impact of feminisation of the teaching profession and its impact on both male and female learners in the current times.

REFERENCES

Abosi, O. (2007). Educating Children with Learning Disabilities in Africa. *Learning Disabilities Research & Practice*. 22. 196 - 201. 10.1111/j.1540-5826.2007.00242.x.

ACPF (2011). Educating Children With Disabilities In Africa: Towards a Policy of Inclusion. Addis Ababa: *The African Child Policy Forum*.

Al-Natour, M., Amr, M., Al-Zboon, E., & Alkhamra, H. (2015). Examining Collaboration and Constrains on Collaboration between Special and General Education Teachers in Mainstream Schools in Jordan. *International Journal of Special Education*, *30*(1), 64-77.

American Psychiatric Association. (2013). Diagnostic and Statistical Manual of Mental Disorders, 5th ed. Arlington: *American Psychiatric Association.*

Avramidis, E., Aroni, K., & Strogilos, V. (2022). Social Participation and Quality of Best Friendship of Students With Moderate Learning Difficulties in Early Adolescence: A Longitudinal Study. *Australasian Journal of Special and Inclusive Education*, *46*(1), 74-87.

Bal, M., & Kocak, N. (2018). The Effectiveness of Peer Support on the Psychological and Academic Adaptation of University Students. *Journal of Education and Practice,* 9(21), 22-29.

Banks, C. M. (2018). A Qualitative Study on Teachers' Perceptions of Co-Teaching in Inclusion Classrooms. *Seton Hall University.*

Bates, B. (2019). Learning theories simplified. London: *SAGE.*

Chambers, C. (2020). Teachers' Response to Intervention Processes to Address Disproportionality of Enrollment of African American Students in Special Education*: A Qualitative Study (Doctoral dissertation, Northcentral University).*

Chappell, A., Goodley, D., & Lawthom, R. (2001). Making connections: the relevance of the social model of disability for people with learning difficulties. *British Journal of Learning Disabilities, 29*, 45-50.

Chege, Lydia & Juma, Samuel. (2019). Role Of Teachers in Identification and Support for Learners with Learning Disabilities in Primary Schools in Kenya. 10.13140/RG.2.2.33277.69603.

Clark, K. A. (2018). The Generalized Effects of Upgrade Your Performance on Employment Soft Skills of Students with Intellectual and Developmental Disabilities: *A Study of Generalization (Doctoral dissertation, The University of North Carolina at Charlotte).*

Coles, J. (2001). The Social Model of Disability: What does it mean for practice in services for people with learning difficulties? *Disability & Society, 16*, 501 - 510.

Cooper, A. R. (2022). Sleep Health in Adolescents with Restrictive Eating and Purging Behaviors (*Doctoral dissertation, Fairleigh Dickinson University).*

Cuban, L. (1993). How teachers taught: Constancy and change in American classrooms, 1890-1990. *Teachers College Press.*

de Boer, A., Pijl, S. J., & Minnaert, A. (2011). Regular primary schoolteachers' attitudes towards inclusive education: A review of the literature. *International Journal of Inclusive Education*, *15*(3), 331–353. https://doi.org/10.1080/13603110903030089.

Deshler, D. D., Alley, G. R., Warner, M. M., & Schumaker, J. B. (1981). Instructional practices for promoting skill acquisition and generalization in severely learning disabled adolescents. *Learning Disability Quarterly*, *4*(4), 415-421.

Deshler, D. D., Schumaker, J. B., Lenz, B. K., Bulgren, J. A., Hock, M. F., Knight, J., & Ehren, B. J. (2009). Ensuring content-area learning by secondary students with learning disabilities. *Journal of education*, *189*(1-2), 169-181.

Deshler, D. D., Schumaker, J. B., Lenz, B. K., Bulgren, J. A., Hock, M. F., Knight, J., & Ehren, B. J. (2001). Ensuring content-area learning by secondary students with learning disabilities. *Learning Disabilities Research & Practice*, *16*(2), 96-108.

DeSimone, J. R., & Parmar, R. S. (2006). Middle school mathematics teachers' beliefs about inclusion of students with learning disabilities. *Learning Disabilities Research & Practice*, *21*(2), 98-110.

Downing, J. E., & Eichinger, J. (2003). Creating Learning Opportunities for Students with Severe Disabilities in Inclusive Classrooms. *Teaching Exceptional Children, 36*, 26 - 31.

Drabble, S. (2013). Support for children with special educational needs (*SEN).*

Ebersold, S., & Cramer, E. (2017). Teacher attitudes and perceptions of inclusive education: A review of the literature. *International Journal of Inclusive Educati*on, 21(5), 497-514.

Economic Survey (2022). Retrieved from https://www.knbs.or.ke/download/economic-survey-2022/.

El Keshky, Mogeda & Alahmadi, Nsreen. (2018). Assessing Primary School Teachers's Knowledge of Specific Learning Disabilities in the Kingdom of Saudi Arabia. *Journal of Educational and Developmental Psychology*. 9. 9-22. 10.5539/jedp.v9n1p9.

European Accessibility Act (2019). 2019/882, OJ L 151.

Fidan, D. (2016). Teachers' attitudes towards students with learning disabilities: A review of the literature. *Journal of Education and Practice,* 7(12), 17-22.

Fletcher, J. M., Lyon, G. R., Barnes, M., Stuebing, K. K., Francis, D. J., Olson, R. K., ... & Shaywitz, B. A. (2002). Classification of learning disabilities: An evidence-based evaluation. *Identification of learning disabilities: Research to practice*, 185-250.

Florian, L. (2018). Teacher education for inclusion: Changing paradigms and innovative approaches. *European Journal of Teacher Education,* 41(3), 291-308.

Florian, L., & Pullin, D. (2002). Defining difference: a comparative perspective on legal and policy issues in education reform and special educational needs. In *Special education and school reform in the United States and Britain* (pp. 25-51). Routledge.

Gachago, V. W. (2018). *An exploration of inclusive education for children with special educational needs in kenya twenty years after the salamanca statement*. Nottingham Trent University (United Kingdom).

Gersten, R., Fuchs, L. S., Williams, J. P., & Baker, S. (2001). Teaching reading comprehension strategies to students with learning disabilities: *A review of research. Review of educational research*, 71(2), 279-320.

Griful-Freixenet, J., Struyven, K., & Vantieghem, W. (2021). Toward more inclusive education: an empirical test of the universal design for learning conceptual model among pre service teachers. *Journal of Teacher Education,* 72(3), 381-395.

Grigorenko, E. L., Compton, D. L., Fuchs, L. S., Wagner, R. K., Willcutt, E. G., & Fletcher, J. M. (2020). Understanding, educating, and supporting children with specific learning disabilities: 50 years of science and practice. *American Psychologist*, *75*(1), 37.

Grumet, M. R. (1995). Somewhere under the rainbow: The postmodern politics of art education. *Educational Theory*, *45*(1), 35-42.

Hartmann, G. M. (2013). The relationship between mindset and students with specific learning disabilities.

Haug, B. S. (2014). Inquiry-based science: Turning teachable moments into learnable moments. *Journal of Science Teacher Education*, *25*(1), 79-96.

Haug, P., Solheim, O. J., & Borge, A. I. H. (2019). Teacher preparation for inclusive education: A review of literature. *European Journal of Special Needs Education*, 34(2), 259-274.

Hegarty, M., & Just, M. A. (1993). Constructing mental models of machines from text and diagrams. *Journal of Memory and Language, 32*(6), 717–742. https://doi.org/10.1006/jmla.1993.1036

Hoeft, F., Meyler, A., Hernandez, A., Juel, C., Taylor-Hill, H., Martindale, J. L., ... & Gabrieli, J. D. (2007). Functional and morphometric brain dissociation between dyslexia and reading ability. *Proceedings of the National Academy of Sciences*, *104*(10), 4234-4239.

Hornstra, L., Denessen, E., Bakker, J., van den Bergh, L., & Voeten, M. (2010). Teacher attitudes toward dyslexia: Effects on teacher expectations and the academic achievement of students with dyslexia. *Journal of Learning Disabilities,* 43(6), 515-529.

Individuals with Disabilities Education Improvement Act (2004), *P.L.* 108-446, 20 U.S.C. $ 1400 et seq.

Johnson, C., & Shoho, A. R. (2017). The effectiveness of mindfulness training for teachers: A longitudinal study. *Journal of School Psychology*, 63, 79-91. doi: 10.1016/j.jsp.2017.06.005.

Katitia, D. M. O. (2015). Teacher Education Preparation Program for the 21st Century. Which Way Forward for Kenya?. *Journal of Education and Practice*, *6*(24), 57-63.

Kaval, K. A. & Forness, S. R. (1996). Social skill deficits and LD: A meta-analysis. *J Learn Disabil* 29: 226-237.

Kavale, K. A., & Forness, S. R. (2000). What definitions of learning disabilities say and don't say: A critical analysis. *Journal of Learning Disabilities,* 33(3), 239-256.

Kenya Education Sector Support Programme. (2005–2010.) Retrieved from https://planipolis.iiep.unesco.org/sites/default/files/ressources/kenya_kessp_final_2005.pdf.

Kenya Institute of Special Education. (2016). Our core functions. Retrieved from http://kise.ac.ke/.

Kiru, E. W. (2018). *Mathematics Instruction with Information and Communication Technologies: An International Comparison Using the TALIS Dataset*. The University of Texas at Austin.

Kızılkaya, G., & Karadağ, E. (2019). Teachers' attitudes towards inclusion and their preparedness to teach students with disabilities. *Educational Sciences: Theory and Practice,* 19(4), 147-166.

Klassen, R. M., & Chiu, M. M. (2010). Effects on teachers' self-efficacy and job satisfaction: Teacher gender, years of experience, and job stress. *Journal of Educational Psychology*, 102(3), 741-756.

Kohli, A., Sharma, S., & Padhy, S. K. (2018). Specific learning disabilities: Issues that remain unanswered. *Indian journal of psychological medicine*, *40*(5), 399-405.

Koomen, M., Kahn, S., Atchison, C. L., & Wild, T. A. (Eds.). (2018). *Towards inclusion of all learners through science teacher education* (Vol. 36). Brill.

Kumar, B., & Baig, M. (2022). Technology Enabled Learning: Use of Smartphones in Higher Education. *Sumedha Journal of Management,* 11(3), 54.

Lavrakas, P. J. (2013). Presidential address: applying a total error perspective for improving research quality in the social, behavioral, and marketing sciences.

Lee, S., Palmer, S.B., & Wehmeyer, M.L. (2009). Goal Setting and Self-Monitoring for Students With Disabilities. *Intervention in School and Clinic, 44*, 139 - 145.

Lembke, E. S., McMaster, K. L., Smith, R. A., Allen, A., Brandes, D., & Wagner, K. (2018). Professional development for data-based instruction in early writing: Tools, learning, and collaborative support. *Teacher Education and Special Education*, *41*(2), 106-120.

Lorusso, M. L., Vernice, M., Dieterich, M., Brizzolara, D., Masi, S. D., D'Angelo, F., Lacorte, E., & Mele, A. (2014). The process and criteria for diagnosing specific learning disorders:

Indications from the Consensus Conference promoted by the Italian National Institute of Health. *50* (1:77-89), 13. https://doi.org/10.4415/ANN_14_01_12.

Mangope, B., Kuyin, A. B., Bramwell, K., Ramoroka, B. T., Major, T. E., & Musaruwa, C. (2018). From mainstreaming to inclusion: have shifts in paradigms improved the practice of special education in Botswana?.

Masuku, M. M. (2021). Restoring Inclusive Education: Paradigm Shift from a Medical to a Social Model among Learners with Disability. *Journal of Sociology and Social Anthropology*.

Ministry of Education. (2018). Sector Policy for Learners and Trainees with Disabilities. Retrieved from:

https://planipolis.iiep.unesco.org/sites/default/files/ressources/kenya_sector_policy_learners_trainees_disabilities.pdf.

Newman, L., Wagner, M., Cameto, R., & Knokey, A. M. (2009). The post-high school outcomes of youth with disabilites up to 4 years after high school: A report from the National Longitudinal Transition Study-2 (NLTS2). (NCSER 2009-3713). Menlo Park, CA: *SRI International.*

O'Connor, E. A., & Butterfield, N. (2014). Teachers' attitudes toward students with disabilities: Positive attitude and the effects of teacher experience. *Journal of Disability Policy Studies, 25*(1), 11-21.

O'Gorman, E. (2010). The Context of Professional Learning for Inclusion: A 4-Ply Model. *International Journal of Whole Schooling*, *6*(1), 39-52.

OECD. (2009). Creating Effective Teaching and Learning Environments - first results from TALIS. Paris: *OECD.*

OECD. (2010). Finland: Slow and Steady Reform for Consistently High Results Paris: *OECD.* http://www.oecd.org/pisa/pisaproducts/46581035.pdf.

Owens, J. (2015). Exploring the critiques of the social model of disability: the transformative possibility of Arendt's notion of power. *Sociology of health & illness*, *37*(3), 385-403.

Peterson, R. L., Boada, R., McGrath, L. M., Willcutt, E. G., Olson, R. K., & Pennington, B. F. (2017). Cognitive prediction of reading, math, and attention: Shared and unique influences. *Journal of learning disabilities*, *50*(4), 408-421.

Pisha, B., & Coyne, P. (2001). Smart from the start: The promise of universal design for learning. *Remedial and special education,* 22(4), 197-203.

Rapp, W. H., & Arndt, K. L. (2012). *Teaching everyone: An introduction to inclusive education*. Brookes Publishing Company. PO Box 10624, Baltimore, MD 21285.

Robson, C. (2002). Real World Research. *Blackwell,* (2nd edition).

Rouse, W. B. (2016). Universities as complex enterprises: How academia works, why it works these ways, and where the university enterprise is headed. *John Wiley & Sons.*

Save the Children UK. (2012). 'Review: Teacher support and development (summary).' http://www.savethechildren.org.uk/sites/default/files/docs/Teacher%20Support%20and%20Develop ment%20-%20Summary%20-%20v4.pdf.

Sector Policy for Learners and Trainees with Disabilities (2018). Retrieved from https://repository.kippra.or.ke/bitstream/handle/123456789/555/Sector%20Policy%20for %20learners%20and%20trainees%20with%20disabilities.pdf?sequence=1&isAllowed=y.

Shah, R. K., & Campus, S. (2021). Conceptualizing and defining pedagogy. *IOSR journal of research & method in education*, *11*(1), 6-29.

Shareefa, M., Hj, R., Zin, A., Zaiham, N., Abdullah, M., University, R., Daarussalam, B. & Darussalam, B. (2019). Differentiated Instruction: Definition and Challenging Factors Perceived by Teachers.

Sharma, A., Baral, R., Khanal, P., & Bista, K. (2018). Teacher training and professional development: A case study of Nepal. *Journal of NELTA,* 23(1-2), 94-103.

Singh, C. K. S., Ramachandran, A., Singh, T. S. M., Tek, O. E., Yunus, M. M., & Mulyadi, D. (2020). The use of think pair share of cooperative learning to improve weak students' speaking ability. *International Journal of Psychosocial Rehabilitation*, *24*(05).

Soodak, L. C., & Podell, D. M. (1996). Teacher efficacy and student problem-solving ability. *The Elementary School Journal,* 96(3), 275-292.

Stough, L. M., & Palmer, D. J. (2013). The role of teachers' attitudes and behaviors in facilitating the academic functioning of elementary students with dyslexia. *Journal of Learning Disabilities*, 46(2), 124-135.

Swanson, H. L. (2014). Does cognitive strategy training on word problems compensate for working memory capacity in children with math difficulties?. *Journal of Educational Psychology*, *106*(3), 831.

Thapar, A., Collishaw. S., Pine D. S. & Thapar, A. K. (2012). Depression in adolescence. *Lancet*; 379:1056–1067.

Thomas, G., & Whitten, J. (2012). Learning support for students with learning difficulties in India and Australia: Similarities and differences. *International Education Journal: Comparative Perspectives*, *11*(1), 3-21.

Tongco, M. D. C. (2007). Purposive sampling as a tool for informant selection.

UNESCO (2001). The Open File on Inclusive Education. Paris: *UNESCO.*

UNESCO. (1994). The Salamanca statement and framework for action on special needs education. Paris, France: *UNESCO.*

UNESCO. (2000). Education for all. Retrieved from http://www. unesco.org/new/en/education/themes/leading-the-international-agenda/education-for-all/.

UNESCO. (2012). Education for all global monitoring report. Retrieved from http://en.unesco.org/gem-report/sites/gemreport/files/education_in_kenya_a_fact_sheet.pdf.

UNESCO. (2019). Policy guidelines on inclusion in education. Paris: *UNESCO.*

UNICEF. (2021). Transforming Education in Africa; An evidence-based overview and recommendations for long-term improvements. Retrieved from: https://www.unicef.org/media/106686/file/Transforming%20Education%20in%20Africa.pdf.

United Nations. (2006). Convention on the rights of persons with disabilities. Retrieved from https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities.html

Universal Design for Learning. https://portal.ct.gov/SDE/Publications/Assistive-Technology-Guidelines-Section-1-For-Ages-3-22/Universal-Design--for-Learning.

Vanegas, S., Artiles, A. J., & Anastasiou, D. (2018). Inclusive education: Preparing teachers for learners with disabilities. *European Journal of Teacher Education*, 41(2), 143-160.

Wanjiku W. A. (2023). The Impact of Dyslexia in Understanding Mathematics and Career Prospects in Kenya. Review of Literature. *East African Journal of Interdisciplinary Studies*, *6*(1), 246-258.

Watkins, C., & Mortimore, P. (1999). Pedagogy: What do we know. *Understanding pedagogy and its impact on learning*, 1-19.

Watkins, M. (2006) Pedagogic Affect/Effect: Embodying a Desire to Learn, Pedagogies: *An International Journal*, 1:4, 269-282, DOI: 10.1080/15544800701341533.

Williams, A. (2013). A teacher's perspective of dyscalculia: Who counts? An interdisciplinary overview. *Australian Journal of Learning Difficulties*, *18*(1), 1-16.

World Economic Forum. (2018). The future of jobs report 2018. Geneva: *Centre for the New Economy and Society.*

World Health Organization. (2008). School policy framework: implementation of the WHO global strategy on diet, physical activity and health. *WHO.*

Zorlu, K., & Cavkaytar, A. (2015). Teachers' attitudes toward inclusion and perceived preparedness to teach students with special needs. *Educational Sciences: Theory and Practice,* 15(3), 669-677.

APPENDICES

Appendix 1: Semi Structured Interview Guide

Informed Consent Statement

Good morning/afternoon.

My name is ………………………………………………………………………… I am a student from the Institute for Development Studies, at the University of Nairobi, pursuing a Masters' degree in Development Studies. I am conducting research for my project paper on teacher preparedness for inclusion and support of learners with SLDs. The information I need for my studies is based especially on the teachers and other education ministry stakeholders who have knowledge and experience on the topic.

I am kindly requesting your permission to share your experiences and knowledge on the issue of teacher preparedness to deal with all learners despite their learning difficulty. I assure you that your identity and all information that you will share will be treated with high confidentiality level, and will only be used for the purposes of this academic paper. I greatly value your participation. Please note that this will be treated as voluntary because the information is for an academic paper, there is no compensation for participation. I, however, will be sincerely grateful for your cooperation. It is my hope that the outcome of this study, especially the recommendations will contribute to the development of teacher education for inclusive education practices in order to enhance education for all.

Now that the purpose for my call is clear, please let me proceed with the interview.

Date…………………….

Start time………………………… End time…………….

Section 1: Demographic Information

1. What is your name?

2. Please select your role:

    a) Class Teacher

    b) Head teacher

    c) Retired Teacher

    d) Teacher Trainer

    e) Teacher Trainee

3. Gender:

    a) Male

    b) Female

1. How many years of teaching experience do you have?

2. How old are you?

3. What is the name of the public school you are affiliated with?

4. Which grade levels do you currently teach or have taught in the past? (Tick all that apply)

    a) Kindergarten

    b) Elementary school (Grades 1-5)

    c) Middle school (Grades 6-8)

    d) High school (Grades 9-12)

    e) College

    f) University

5. Highest level of education:

    a) Secondary completed

    b) Diploma/certificate

    c) University

6. Academic Qualification. 01). P1

    a) P2

    b) Diploma

    c) University degree

    d) Masters

e) None of the above

Section 2: Inclusion and Specific Learning Disabilities

7. How familiar are you with the term "specific learning disabilities/difficulties"? Yes/No.

Read out the definition of SLDs whether response is yes or no: *These are a general category of special education made up of challenges or limitations in one or more of the seven skill domains. The seven ability areas include speaking, listening, basic reading (word recognition and decoding), reading comprehension, arithmetic calculations, and written expression. Despite the fact that they are not the main cause of SLDs, emotional, social, and behavioural disorders can coexist with or be present with the aforementioned disabilities.*

8. What are some of the most common Specific Learning Disabilities (SLDs) that you are familiar with (Select all that apply)

   a) Dyslexia
   b) Dysgraphia
   c) Dyscalculia
   d) Attention Deficit Hyperactivity Disorder (ADHD)
   e) Autism Spectrum Disorder (ASD)
   f) Intellectual Disability
   g) Other (please specify) _____

9. How do you identify students with SLDs? (Select all that apply)
   a) Teacher observation
   b) Standardised assessments
   c) Parent/guardian input
   d) Student self-report
   e) Other (please specify) _____

*Do not read out. Identifying students with SLDs involves a comprehensive evaluation process that typically includes a review of the student's academic and medical history, observation of the student in different settings, and standardised testing to assess their academic abilities. This evaluation process is typically led by a team of professionals, including special education teachers, school psychologists, and other related service providers (***Check for knowledge of any of the processes***).*

10. What challenges have you faced in supporting and including learners with SLDs in your classroom? (Check all that apply)

   a) Limited resources and materials

   b) Lack of training and professional development opportunities

   c) Difficulty identifying learners with SLDs

   d) Difficulty differentiating instruction for learners with different needs

   e) Difficulty managing behaviour in the classroom

   f) Other (please specify)

11. How confident do you feel in your ability to identify learners with specific learning disabilities in your classroom?

   a) Very Confident

   b) Somewhat Confident

   c) Not Confident

Section 3: Classroom Practices

12. How do you differentiate instruction to meet the needs of learners with SLDs? (Select all that apply)

   a) Visual aids (e.g., charts, diagrams, pictures)

   b) Manipulatives (e.g., blocks, counters, tactile materials)

   c) Assistive technology (e.g., text-to-speech, speech-to-text)

   d) Flexible grouping (e.g., small group instruction, peer tutoring)

   e) Multisensory instruction (e.g., kinesthetic learning, auditory learning)

   f) Explicit instruction (e.g., breaking down tasks into small steps)

   g) By offering opportunities for student choice and autonomy

   h) Other (please specify)

13. 16. In your opinion, what are some of the biggest challenges to differentiating instruction for learners with SLDs?

   a) Limited resources (e.g., time, materials)

   b) Lack of training or support

   c) Student resistance

   d) Large class size

e) Other (please specify)

14. How often do you work with special education teachers or support staff to address the needs of learners with specific learning disabilities?

a) Very often
b) Often
c) Not very often
d) Never

15. What resources or materials do you find most helpful in supporting learners with specific learning disabilities? Please select all that apply.
a) Extended time for assignments or assessments
b) Reduced workload or modified assignments
c) Use of assistive technology (e.g. text-to-speech, speech-to-text, calculators)
d) Use of a scribe or note-taker
e) Preferential seating or physical accommodations (e.g., standing desk, fidget tools)
f) Simplified or clarified instructions
g) Breaks or sensory accommodations (e.g., noise-cancelling headphones, fidget toys)
h) Other (please specify): _____

Section 4: School Support and Policies

16. Does your school have specific policies or guidelines in place to support learners with specific learning disabilities?
a) Individualised Education Programme (IEP)
b) Procedures for early identification of students with SLD I.e Regular screenings and assessments
c) Qualified professionals, i.e special education teachers, learning support specialists, school psychologists, and speech therapists.
d) Offer ongoing professional development opportunities for teachers and staff to enhance their understanding of SLD and effective instructional practices.
e) Providing appropriate accommodations and modifications to students with SLD.
f) Encourage cooperative learning, understanding, and support for students in an inclusive classroom environment.

g) Support staff promotes open communication, collaboration, and collaboration among students, parents, and professionals.

h) Transition plans for students with SLD as they move from one grade level to another.

i) Engage parents/guardians in the educational process by providing information, resources, and opportunities for collaboration.

j) Implement UDL principles in curriculum design to create flexible learning environments that accommodate diverse learning needs.

k) Others specify

l) None of the above

17. How would you rate the level of support and resources provided by your school to help you meet the needs of learners with specific learning disabilities?

a) Very good

b) Good

c) Neutral

d) Not good

e) None

18. Have you ever heard of the term Individualised Education Plan (IEP)? Yes/No. If no skip to question 23.

19. Are there any learners in your class using an IEP? Yes/No. If Yes, How many?

Section 5: Personal Attitudes and Beliefs

20. In your opinion, which of the following statement do you agree with?

a) Inclusive education is a process that addresses and responds to the various needs of all learners through inclusive practices in learning, cultures, and communities while lowering exclusion from and within the educational system to provide high-quality instruction while taking diversity, individual needs, talents, and learning goals into consideration.

b) Inclusive education refers to a process that focuses on individuals who were previously excluded from mainstream classroom like those with physical disabilities.

21. What are your thoughts on learners experiencing difficulty in a classroom in specific areas?

a) They provide learning opportunities for me as a teacher

b) They take too much time

c) They should be put in different classroom

d) All learners are not the same so they should be supported

e) Others (Specify)

22. How frequently do you provide opportunities for students with SLDs to engage in class discussions and activities?

a) Always

b) Often

c) Sometimes

d) Rarely

e) Never

23. What challenges do you think learners with SLDs face in class? Tick all that apply

a) Stigma and Misunderstanding

b) Classroom environments that do not provide appropriate accommodations and modifications.

c) Social and Emotional Difficulties

d) Executive Functioning Challenges i.e planning, organizing, initiating tasks, self-monitoring, and impulse control

e) Slower processing speed

f) Attention and Focus Issue

g) Struggle with acquiring and retaining information

24. Do you modify or adapt assignments and assessments to meet the needs of students with SLDs in your classroom?

a) I always modify or adapt assignments and assessments

b) I often modify or adapt assignments and assessments

c) I sometimes modify or adapt assignments and assessments

d) I rarely modify or adapt assignments and assessments

e) I never modify or adapt assignments and assessments

25. How important do you believe it is to include learners with SLDs in the general education classroom?

a) Very important

b) Somewhat important

c) Not very important

d) Not at all important

Section 7: Collaboration and Communication

Read out to respondent: Open communication, common objectives, respect for one another, and an emphasis on student welfare are all necessary for good teamwork. Together, teachers can foster a welcoming and inclusive learning environment for SLD students.

26. Which of these collaborative methods do you use in your school to provide an inclusive learning environment?

a) Engage in regular reflection and feedback sessions with colleagues and constructive feedback on instructional strategies

b) Participate in multidisciplinary team meetings with other professionals, such as special education teachers, speech-language pathologists, occupational therapists, and psychologists.

c) Encourage peer tutoring among SLD learners and their classmates.

d) Work together to develop and review IEPs for SLD learners.

e) Use data to inform instructional decisions and modify teaching strategies accordingly.

f) Professional Development courses to explore new teaching strategies and interventions that support SLD learners' needs.

g) Implement co-teaching models, such as parallel teaching, station teaching, or team teaching.

h) Share successful instructional strategies and interventions that have worked for SLD learners in the past.

i) Collaboratively plan lessons, activities, and accommodations to meet the diverse needs of SLD learners.

j) None of the above

27. How often do you receive feedback from colleagues, parents, or administrators regarding your effectiveness in supporting learners with specific learning disabilities?

a) Very often

b) Often

c) Not often

d) Not at all

28. How often does the school have meetings and get feedback from parents or caregivers of children with learning difficulties?

a) Very often

b) Often

c) Not often

d) Not at all

Section 8: Professional Development and Support

29. Have you received any professional development or training specific to supporting learners with specific learning disabilities in inclusive classrooms? If yes, please describe the content and effectiveness of the training.

30. Do you believe professional development is important to meet the needs of all learners effectively? Yes/No

31. How effective are the professional development opportunities provided by your school or district in enhancing your ability to support learners with specific learning disabilities?

a) Very effective

b) Somewhat effective

c) Not effective

Section 9: Teacher Training Programmes

32. If you are a teacher trainer or teacher trainee, how adequately do you believe your training programme prepares you to address the needs of learners with specific learning disabilities in inclusive classrooms?

a) Very well prepared

b) Somewhat prepared

c) Neutral

d) Very little preparation

e) Not at all prepared

33. To what extend do you agree or not that SNE and I.E should be compulsory course?

a) Not at all

b) Somewhat

c) Agree

d) Strongly agree

34. How well do teacher training programmes address the importance of fostering a positive and inclusive classroom culture for learners with specific learning disabilities?

a) Very well

b) Somewhat well

c) Not very well

d) Not at all

Section 10: Reflection and Self-Evaluation

35. How often do you reflect on your teaching practices and strategies to ensure they are inclusive and meet the needs of learners with specific learning disabilities?

a) Very often

b) Often

c) not very often

d) Not at all

36. In your opinion, what are the key qualities or skills that teachers should possess to effectively support learners with specific learning disabilities in inclusive classrooms? Select all that apply

a) Knowledge of Specific Learning Disabilities

b) Assessment skills

c) Effective teachers use differentiated instruction to accommodate diverse learning needs.

d) Patience and Empathy

e) Strong Communication Skills

f) Knowledge of Assistive Technology

g) Positive Behaviour Management

h) Continuous Professional Development

i) Flexibility and Adaptability

j) Collaboration and Teamwork

k) Ability to read, understand, and implement IEPs effectively, adapting their teaching strategies to meet the student's individual needs.

37. In what ways do you involve learners with specific learning disabilities in setting goals and monitoring their own progress?

a) Celebrate the learner's achievements and progress and recognize their efforts, no matter how small, and provide positive reinforcement.

b) Schedule regular check-ins with the learner to discuss their progress, challenges, and any adjustments needed.

c) Incorporate regular self-reflection activities into the learning process by encouraging learners to assess their own work, identify strengths and areas for improvement, and set new goals based on their reflections.

d) Involve them in the process of selecting strategies and accommodations that work best for them

e) Conduct regular goal-setting conferences with the learner, their parents/guardians, and relevant educators.

f) Others specify

38. Based on your experience, what suggestions or recommendations do you have for improving inclusive education and support for learners with specific learning disabilities in public schools? *open response*

Thank you for taking the time to give us your responses.