Learning Environment and Inclusion of Learners with Special Educational Needs in Government Aided Primary Schools, Nwoya District

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Declaration

I, Agnes Acayo, hereby declare that this research proposal entitled *"Learning Environment and Inclusion of Learners with Special Needs & Disability in Government aided Primary Schools in Nwoya District"* is my original work and has never been submitted to any institution of higher learning for any academic award.

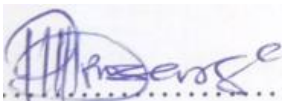
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Approval

This certifies that this research proposal entitled *"Learning Environment and Inclusion of Learners with Special Needs & Disability in Government aided Primary Schools in Nwoya District"* has been written under my supervision and is submitted for review with our permission.

Signature:  Date: 10/10/26

Dr. George Opio (PhD)

Dedication

This dissertation is dedicated to the Almighty God for his divine grace, wisdom, strength, and guidance throughout my post graduate studies and the successful completion of this research.

I also dedicated this work to my beloved parents, family, and friends for their unwavering love, prayers, encouragement, and moral support throughout my academic journey. Their sacrifices, patience, and ability inspired me to persevere despite the challenges encountered during this study.

Finally, dedicate this dissertation to all learners with special educational needs and disabilities, their parents, teachers, school leaders, and educational stakeholders whose commitment to inclusive education continue to inspire the pursuit of equitable, quality, and inclusive education for every learner.

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Abstract

The study examined the influence of learning environment on inclusion of learners with special educational needs in Government aided primary schools, Nwoya District. The study was guided by the following specific objectives namely; to examine the quality of learning environment in primary schools in Nwoya District; to assess the level of inclusion of learners with special educational needs and disability in Nwoya district, to determine the relationship between learning environment and inclusion of learners with Special Educational Needs in primary schools in Nwoya District and to analyze the moderation effect of Gender and disability status on the relationship between learning environment and inclusion of learners with Special Educational Needs in primary schools in Nwoya District. The study employed a mixed method approach with convergent mixed method research design. Data was collected from a sample of 200 respondents using questionnaires while qualitative data (20) were collected using interview guide and focus-group discussions. Quantitative data was sorted and entered the SPSS version 26.0 spreadsheet while qualitative data was sorted, cleaned, coded and analyzed using thematic analysis which generated themes, sub themes, codes, verbatim responses and interpretations. Findings for research question One showed that the quality of learning environment in primary schools in Nwoya District was low/Poor while findings for research question two showed that the level of inclusion of learners with Special Educational Needs in primary schools in Nwoya District was low and for research question three there was a strong positive relationship between learning environment and inclusion of learners with Special Educational Needs in primary schools in Nwoya District. The study findings also revealed that for research question four that Gender, and disability status moderated the relationship between learning environment and inclusion of learners with Special Educational Needs in primary schools in Nwoya District. It was concluded that learning environment fundamentally influenced inclusion of learners with Special Educational Needs in primary schools in Nwoya District and it was recommended that government should invest more on quality of learning environment in primary schools if inclusion is to benefit learners with Special Educational Needs.

Chapter one.

Introduction

Overview

Inclusion of learners with special needs is an issue of concern today globally in line with international frameworks such as United Nations Educational, Scientific Cultural Organization (UNESCO) and United Nations (UN), which advocate equal access to education for all learners regardless of their abilities. The Salamanca Statement emphasized that schools should accommodate all children, including those with special needs & disability, in regular education settings. Inclusion emphasizes access, participation and academic achievement for all learners regardless of their status (Ainscow 2020). Issue of Access to education in Uganda had been emphasized in the implementation of Universal Primary Education (1997) and Universal Secondary Education by Ministry of Education and Sports with the aim to ensure that learners with special needs & disability are provided with equitable learning opportunities in government aided primary schools. These learners include those with physical, Sensory, intellectual and emotional challenges who requires supportive learning environments to achieve their full academic potential. However, access remains a challenge in most Government aided primary schools in Nwoya District. Research suggests that learning environment enhances self-esteem, allowing them to develop, thrive and achieve their full academic potential (Ankra-J.r & Danso, 2019). The learning environment is crucial factor in promoting inclusion, all learners require a supportive environment to succeed (UNESCO, 1994; Ezike, 2018; Kamanruddin et.,2009). Despite the association between learning environment and inclusion (Hewett etal.,2017; Ackra-Jnr &Danso,2019), there is limited understanding of how different types of learning environments impact the inclusion of learners with special needs & disability in Government aided-primary schools in Nwoya.

1.1 Background to study.

This chapter will present background, problem statement, purpose, objectives, research questions, scope of the study (geographical scope, content scope, time scope), conceptual framework and the significance.

1.1.1 Historical background

The concept of special needs education has undergone significant transformations over the years, evolving from segregation to integration, and eventually, to full inclusion. (Crealock & Carol 1996) Historically, students with cognitive, physical, or other disabilities were excluded from public schools, often relegated to state institutions where they received little to no education. This was the case worldwide, with learners with disabilities being denied formal education and confined to special institutions (Mitchell, 2015).

The history of special needs education reflects a gradual shift in societal attitudes towards persons with disabilities, from neglect and exclusion to recognition and inclusion. This evolution can be traced through several key stages, including the era of extermination, the asylum period, integration, mainstreaming, and finally, inclusion.

In Ancient Greece, physical perfection was highly valued, and due to that reason, children born with disabilities were often abandoned or killed (Winzer,1993). The Athenians emphasized holistic development of mind and body, while the Spartans prioritized producing strong soldiers. Disabilities were perceived as blemishes on the soul or divine punishment, leading to rejection and infanticide (Dickson, 1961). Philosophers such as Plato and Aristotle even advocated for the killing of children with disabilities with Plato for eugenic reasons and Aristotle for economic ones (Deutsch, 1949).

In Ancient Rome, similar attitudes prevailed. Fathers had the authority to sell or kill disabled children, and the Twelve Tables law mandated death for children born with disabilities, often by stoning (The XII Tables, 1886). Romans feared disability, excluding individuals such as the blind priest Metellus from priesthood, believing it angered the gods ((Bernstein, 2013). A Roman sentiment captured by Seneca stated, ―We destroy monstrous births, and we also drown our children if they are born weakly or unnaturally formed‖ (Seneca). Such practices were justified as maintaining community strength and purity (Winzer, 2009).

The Era of Religious Sanctity (Medieval Period): During the medieval period, religious institutions such as monasteries and churches began to provide shelter and care for persons with disabilities. They were viewed as objects of charity and compassion, though education was minimal, and dependency was reinforced (Studocu, 2024)

The Asylum Period (17th,18th &19th Century) marked a turning point, bringing change as philosophers and humanitarian reformers questioned society's treatment of people with disabilities. Special institutions emerged, focusing on care and protection rather than education. These asylums, initially charitable institutions in England in the late 18th Century, were built and provided by the state from 1815 (historicengland.org.uk), created segregated environments for mentally ill or learning-disabled individuals. This period saw the establishment of pioneering schools for sensory impairments, like Charles-Michel de l'Epee's school for the deaf (1760) and Valenti Hauy's for the blind (1784). These institutions proved individuals with disabilities could learn with support (Hallahan & Kauffman, 2017).

The Segregation Era of late 19th-Mid 20th Century: The Segregation Era (late 19th-Mid 20th Century) saw expanded education for children with disabilities, yet it remained segregated. During this time, special education took shape as a concept, leading to special schools catering to specific disabilities like visual, hearing, or intellectual impairments to be established in many countries. Separate programs were designed for these children, providing access to education but reinforcing separation from mainstream systems (Winzer, 2009). This was because they maintained physical and social separation from mainstream schooling, reflecting a medical and deficit-oriented approach (Winzer, 1993).

Mainstreaming Era (Mid-Late 20th Century): Following World War II and the rise of human rights advocacy & instruments like —The Universal Declaration of Human Rights (1948)‖, learners with mild disabilities began to be integrated into ordinary schools. This mainstreaming approach emphasized normalization and social interaction, though often without adequate support services (Teachers Institute Higher Education, 2023). The Mainstreaming Era (1970s-1980s) promoted partial or full inclusion of learners with disabilities in regular classrooms, provided they met certain performance standards. Built on integration, mainstreaming increased visibility and participation, yet still placed the onus on learners to "fit in" rather than schools adapting teaching methods and environments (Hallahan & Kauffman, 2017). This approach marked a shift towards inclusion, but its implementation was often limited, leaving learners with disabilities to navigate a system that wasn't always equipped to support their needs. Mainstreaming laid groundwork for future inclusive education movements, highlighting the need for systemic changes to truly support diverse learners.

The Inclusivity Era (Late 20th Century to present): The Universal Declaration of Human Rights (1948) and the UN Convention on the Rights of Persons with Disabilities (2006) marked a turning point, establishing education as a basic right for all children, including those with special needs. In 1975, a landmark development transformed special education, offering a clearer vision of inclusive education for all learners. The Individuals with Disabilities Education Act (IDEA)-1975, signed by President Gerald Ford, mandated public schools to provide Free Appropriate Education (FAPE) to children with disabilities. This law required schools to accommodate students with various disabilities, including learning, developmental, and physical disabilities (Bursztyn, 2006).

The IDEA emphasized Least Restrictive Environment (LRE), stressing that children with disabilities should learn alongside non-disabled peers to the maximum extent possible. This provision aimed to eradicate segregation, uniting learners of all abilities under one umbrella and promoting inclusive education (Winzer, 2007). The US law, also known as the Education for All Handicapped Children Act (EAHCA), showcased the reality and possibility of inclusive education, benefiting all learners, including those with disabilities.

The Inclusion Era (1990s to date) began with a global turning point: the 1994 Salamanca Statement and Framework for Action on Special Needs Education (UNESCO, 1994). This landmark declaration stated that "schools should accommodate all children regardless of their physical, intellectual, social, emotional, or linguistic needs". The inclusion era prioritizes full participation, equity, and removing barriers, focusing on adapting schools, curricula, and teaching to meet diverse learner needs. The Salamanca Statement (1994) further emphasized the importance of inclusive education, advocating for mainstream schools to accommodate all learners, regardless of their background or abilities as a way of achieving Education for All (EFA).

In Uganda, special needs education followed a similar path. Missionaries established early institutions like Salam School for the Blind and Ngoro School for the Deaf in the 1950s, catering mainly to children with visual and hearing impairments (Ssebuwufu, 2019). The Colonial government also initiated separate 'Special Education' services in 1952 for children with visual, hearing, learning, and motor impairments, as many with disabilities weren't benefiting from existing education. However, societal attitudes marginalized children with disabilities, slowing

progress. Post-independence, government policies like the Education Act (2008) and National Inclusive Education Policy (2017) reinforced commitment to inclusive education. Universal Primary Education (UPE) policy (1997) increased access and enrollment, though inclusion challenges persisted (MoES, 2011).

Today, Government frameworks like the Education Act (2008), Ministry of Education policy, and Persons with Disabilities Act (2020) mandate inclusive learning environments, aligning with SDG4. In rural areas like Nwoya District, implementation is slow due to limited infrastructure, lack of teacher training in SNE, and inadequate assistive devices.

The learning environment for learners with special educational needs (SEN) & disability has evolved alongside the broader development of inclusive education. Historically, learners with disabilities were either excluded from formal education or placed in segregated institutions where learning opportunities were limited and restrictive (Winzer, 1993; Mitchell, 2015). These environments often emphasized care and separation rather than participation and academic development. However, the rise of human rights movements and international frameworks such as the Salamanca Statement shifted attention toward inclusive schooling that accommodates all learners regardless of disability (UNESCO, 1994). Modern learning environments now emphasize accessibility, participation, equity, and learner support through adapted infrastructure, inclusive teaching practices, and positive social relationships (UNESCO, 2017; Mitchell, 2015). The physical, social, and psychological dimensions of the learning environment are increasingly recognized as critical in determining whether learners with SEN can fully participate and achieve academically (Bronfenbrenner, 1979; Winzer, 2009). In Uganda, policies such as Universal Primary Education (UPE) and the National Inclusive Education Policy have further promoted the need for supportive and barrier-free school environments (Ministry of Education and Sports [MoES], 2017). However, challenges such as inadequate infrastructure, limited teacher training, and persistent stigma continue to affect the quality of inclusive learning environments, especially in rural districts like Nwoya (UNICEF, 2021; Avramidis & Norwich, 2019).

1.1.2 Theoretical Background.

This study will be guided by Ecological systems theory. The Ecological Systems Theory proposed by Bronfenbrenner (1976) explains that a child's development is influenced by a network of interconnected environmental systems rather than isolated factors. These systems range from the immediate environment, such as family, teachers, and peers (microsystem), to

broader societal and cultural influences (macrosystem). The mesosystem highlights interactions between different environments, such as the relationship between home and school, while the exosystem includes external structures like parental workplaces and government policies that indirectly affect the child. The chronosystem captures changes over time, including life events and technological shifts.

Microsystem: This refers to things that have direct contact with the child in his/her immediate environment. These things may include immediate relationships like parents, siblings, classmates, teachers and neighbours. With relationships being bi-directional according to the theory, other people do have chance to influence the child in his/her environment and change other people's beliefs and actions.

The Mesosystem is a person's individual microsystems that do not function independently but are interconnected and assert influence upon one another. This involves interactions between different microsystems in the child's life. These interactions can have significant impacts on the child's development. Example: A child whose parents are actively involved in their school life, such as attending parent-teacher conferences and volunteering for school events, may perform better academically.

The Exosystem. proposed incorporates other formal and informal social structures such as local governments, friends of the family and mass media. While not directly interacting with the child, the ecosystems still influence microsystems. Example: A parent's workplace policies can significantly affect a child's development. If a company offers flexible working hours or work from home options, parents might have more time to spend with their children, positively impacting the child's emotional development and family relationships.

The Macrosystem. is the fourth system proposed by the theory and it focuses on how cultural elements affect a child's development, consisting of cultural ideologies, attitudes and social conditions that children are immersed in. Beliefs about gender roles, individualism, family structures and social issues establish norms and values that permeate a child's microsystems. Example: In a society that highly values individual achievement, children might be encouraged to be more competitive and self-reliant. This could influence parenting styles in microsystem,

with parents focusing more on personal accomplishments and independence. Conversely, in a culture that emphasizes collective harmony, children might be raised to prioritize group needs over individual desires.

The Chronosystem is the final level of the system proposed by Bronfenbrenner. It relates to environmental changes over a child's lifetime. These changes may be predictable such as starting school or unpredictable such as experiencing parental divorce. Example: The introduction of widespread internet access and social media represents a significant chronosystem change for many children. This technological shift has altered how children interact with peers, access information and spend their leisure time, potentially affecting their social skills, cognitive development and even sleep patterns.

Urie Bronfenbrenner's Ecological Systems Theory links psychological and educational theory to curriculum and classroom practice by emphasizing that the developing child is at the center of multiple interacting environmental systems. The theory explains that child development and learning are influenced by continuous interactions within and between the family, school, community, and wider society. In education, it highlights the importance of strong collaboration and communication between teachers and parents in supporting the learner's academic and social development. Teachers are encouraged to understand the socio-economic and family situations affecting learners, since these factors shape educational experiences and outcomes. The theory further emphasizes that supportive school environments and positive home-school relationships contribute significantly to learner growth and inclusion. At the same time, learners themselves are viewed as active participants who must engage socially and academically through collaboration with peers and participation in meaningful learning activities. Overall, the theory provides a holistic framework for understanding how interconnected environmental factors influence learning, development, and inclusion.

1.1.3 Conceptual Background.

A learning environment refers to the comprehensive setting in which learning occurs, incorporating physical, social, and psychological conditions that shape learners' experiences, participation, and outcomes. It extends beyond the classroom to include interactions, relationships, cultural influences, and instructional practices that influence both academic achievement and social development. A conducive learning environment is therefore essential

for promoting inclusion, equity, and engagement, particularly for learners with special educational needs & disability (DELED Institute, 2024; UNESCO, 2017).

Different scholars and policy frameworks emphasize key dimensions of the learning environment, notably the physical, social, and psychological aspects. The Ministry of Education and Sports defines the learning environment as the physical, social, and psychological conditions under which learning takes place, stressing that it must be safe, inclusive, and supportive of holistic learner development (Ministry of Education and Sports, 2017). In operational terms, the Ministry highlights the physical environment as including safe and accessible infrastructure such as classrooms, libraries, and sanitation facilities; the social environment as promoting learner-centered approaches and active participation; and the psychological environment as fostering respect, collaboration, and inclusivity, especially for learners with special needs (Ministry of Education and Sports, 2011; 2017).

Similarly, Ezike (2018) conceptualizes the learning environment primarily through the physical and social dimensions. The physical environment consists of classroom arrangement, furniture, lighting, and ventilation, all of which influence learners' comfort and ability to concentrate. The social environment, on the other hand, focuses on teacher leadership, student interaction, and participation. Ezike emphasizes that a supportive social environment enhances situational interest and engagement, thereby improving academic achievement, while an unfavorable environment can hinder motivation and learning.

In addition, Ackah and Danso (2019) broaden the concept by defining the learning environment as the combination of physical spaces, social interactions, and school culture. Their perspective links the physical environment to not only classroom facilities but also the wider school infrastructure, which must be safe, adaptable, and inclusive. They further stress that the social environment characterized by communication, respect for diversity, and positive relationships directly influences learners' emotional and cognitive development. Implicitly, this also shapes the psychological environment, as positive social connections and supportive conditions foster learners' confidence, well-being, and sense of belonging.

In summary, across these scholars and policy perspectives, the learning environment is understood as a multidimensional concept comprising physical structures, social relationships, and psychological conditions. These dimensions are interrelated and collectively determine the extent to which learners, especially those with special educational needs, can access, participate in, and benefit from education.

According to Slee, Inclusive education can be understood both as an overarching educational objective and as a methodological framework. Inclusive education is therefore understood as the assurance of every child's right to access, participate in, and succeed within their local mainstream school. It requires ordinary neighborhood schools to strengthen their capacity to remove barriers that hinder learners' presence, engagement, and achievement. In doing so, inclusive education seeks to provide high-quality learning experiences and equitable outcomes for all children and young people, regardless of their individual circumstances. Its central purpose is to identify and remove barriers that hinder children's access to learning, ensuring that every learner can attend school, actively participate in classroom life, and achieve meaningful academic and social outcomes. In this way, inclusive education promotes equity by fostering environments where all children are present, engaged, and supported to reach their fullest potential (Slee 2018).

Inclusion as defined by Mel Ainscow in 2018 emphasizes the importance of creating an educational environment that values and respects diversity. He notes that Inclusion means education for children and young people (Ainscow, Tony Booth, Index for Inclusion). Ainscow's operationalization of inclusion involves the following key principles: Ainscow advocates for inclusive language and practices in early childhood education to foster a sense of belonging and valuing of all children. He highlights the impact of non-inclusive language on children's learning and motivation. (Ainscow (2020). Promoting Inclusion and Equity in Education Lessons)

In this study, inclusion will be measured by access, participation and academic achievement.

1.1.4 Contextual Background.

Inclusion in education is commonly understood in terms of access, presence, participation, and academic achievement. Drawing from the context of Northern Uganda and specifically Nwoya

District, these dimensions' reveal both progress and persistent challenges shaped by post-conflict realities, poverty, and systemic limitations.

Access refers to the ability of all learners, including those with special educational needs (SEN) to enroll in and attend school. In Northern Uganda, access has improved following the introduction of Universal Primary Education (UPE), but significant barriers remain. Prolonged conflict during the Lord's Resistance Army (LRA) insurgency led to the destruction of school infrastructure and displacement of communities, limiting physical access to education (Rijournals, 2024). In Nwoya District, although schools have been re-established since its creation in 2010, many still lack adequate classrooms, furniture, and sanitation facilities, which restricts equitable access, especially for vulnerable learners (Nwoya District Local Government, 2025). Additionally, poverty continues to hinder consistent school attendance in rural areas (Rijournals, 2024).

Presence goes beyond enrolment to include regular attendance and retention of learners in school. In Northern Uganda, socio-economic challenges such as poverty and the lingering effects of displacement continue to affect learners' ability to remain in school consistently (Rijournals, 2024). In Nwoya District, many children who grew up in internally displaced persons (IDP) camps experienced disrupted education, which still impacts school attendance and retention today (Poro et al., 2019). For learners with SEN , stigma and lack of supportive infrastructure further reduce their sustained presence in classrooms (Nakiddu, 2020).

Participation in Learning involves active engagement of learners in classroom activities and school life. In Northern Uganda, participation is constrained by inadequate resources, overcrowded classrooms, and limited teacher capacity to implement inclusive teaching strategies (Spreen & Knapczyk, 2017). In Nwoya District, high pupil-teacher ratios and lack of trained teachers in special needs education limit individualized support, reducing meaningful participation of SEN & disability learners (Poro et al., 2019; UNEB, 2022). Furthermore, stigma and negative cultural attitudes toward disability hinder social inclusion and peer interaction, affecting learners' confidence and engagement (Nakiddu, 2020).

Academic achievement reflects learning outcomes and progression. Despite increased enrolment in Northern Uganda, learning outcomes remain low. A 2025 baseline study revealed that 29% of pupils in Primary Three to Five are non-readers, with only 1% of Primary Three learners able to read and comprehend a Primary Two-level English story, and only 11.4% of Primary Five learners able to understand a story in a local language (Oketch B, 2025). These outcomes highlight a gap between access and quality of education. In Nwoya District, poor academic performance is linked to inadequate teacher competence, limited instructional materials, and insufficient support for learners with special needs & disability (Poro et al., 2019; UNEB, 2022). The absence of assistive technologies and specialized teaching approaches further disadvantages SEN & disability learners, widening achievement gaps (Nakiddu, 2020).

Overall, while Northern Uganda and Nwoya District have made progress in expanding access to education, inclusion remains uneven across the dimensions of presence, participation, and academic achievement. Structural challenges such as inadequate infrastructure, teacher shortages, poverty, and stigma continue to limit the full realization of inclusive education. Addressing these barriers requires coordinated efforts in infrastructure development, teacher training, community sensitization, and targeted support for learners with special educational needs & disability.

1.2 Problem Statement

Inclusive education is a globally recognized as an approach that promote equitable access, participation, presence and achievement of all including those learners with special educational needs and disabilities. Uganda government ratified the international and national frameworks such as the Salamanca Statement (10994), the Persons with disabilities Act (2020) and special Needs and Inclusive Education Policies. Inclusive education remains inadequately implemented in practice. Ideally, all learners, including those with special educational needs (SEN) & disability, should have equitable access, consistent school presence, active participation, and meaningful academic achievement within supportive learning environments (Ministry of Education and Sports, 2019). However, this ideal contrast sharply with the reality in many government-aided primary schools, particularly in post-conflict regions such as Nwoya District in Northern Uganda. Empirical evidence indicates that inclusion levels remain low, with only about 5% of learners with disabilities accessing education through inclusive schools and

approximately 10% in special schools, leaving the majority excluded (World Bank, 2020). These challenges are largely attributed to deficiencies in the learning environment, including inadequate physical infrastructure, limited teaching and learning materials, and insufficient teacher training in inclusive pedagogy. In addition, negative attitudes and stigma toward learners with disabilities among teachers, peers, and communities further hinder inclusion by reducing acceptance, lowering expectations, and limiting learner participation. Socio-economic constraints and the legacy of conflict in Northern Uganda also continue to weaken educational systems and learner support (UNESCO, 2020; UNICEF, 2023). As a result, learners with SEN & disability experience low enrolment, irregular attendance, limited classroom participation, and poor academic achievement, reinforcing educational inequalities. Although previous studies have identified general barriers to inclusive education in Uganda, there is limited context-specific research examining how the learning environment including physical, social, psychological, and attitudinal factors affects inclusion across access, presence, participation, and achievement in rural post-conflict settings. This study therefore seeks to address this gap by investigating the influence of the learning environment on the inclusion of SEN disability learners in government-aided primary schools in Nwoya District.

1.3 Purpose of the Study

The purpose of this study is to examine the influence of Learning environment on the Inclusion of learners with special educational needs & disability in government aided primary schools in Nwoya District.

1.4 Objectives of the Study

The study objectives were;

i. To assess the quality of Physical Learning Environment on Inclusion of learners in Government aided Primary schools in Nwoya District.
ii. To assess the level of Inclusion of Special Educational Needs (SEN) learners in Government aided Primary schools in Nwoya District.
iii. To determine the relationship between learning environment and Inclusion of learners with (SEN) in Government aided Primary schools in Nwoya District.
iv. To analyze the moderating effect of Gender on the Inclusion of learners (SEN) in Government aided Primary schools in Nwoya District.

1.5 Research Questions.

i. What is the status of learning environment and inclusion of learners with special educational needs in government aided primary school in Nwoya district?
ii. What is the level of inclusion of special educational needs learners in government aided primary schools in Nwoya District?
iii. What is the relationship between learning environment and the inclusion of learners with special educational needs in government aided primary schools in Nwoya District?
iv. How do gender and do gender and disability moderate the relationship between learning environment and inclusion of learners with special educational need.

. 1.6 Conceptual Framework (Adjusted with Variables)

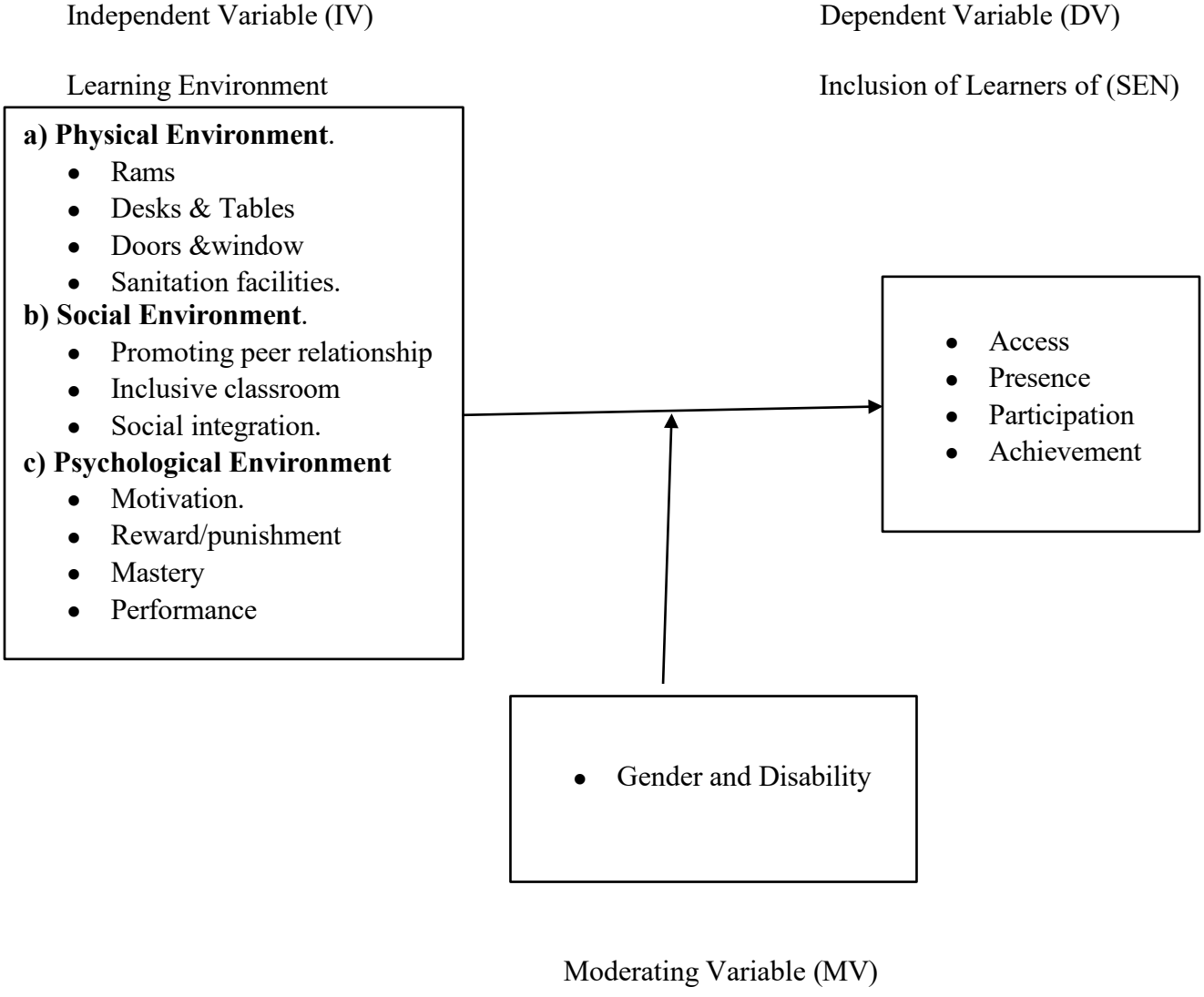


Figure 1: Conceptual Framework

Source: Adapted with Modification from Bronfenbrenner Erie (1976).

The Conceptual Framework above shows that there is an assumed relationship/linkage between the Independent Variable (IV) and Dependent Variable (DV). It shows that the Independent Variable (IV) of Learning Environment and its constructs that are the Physical, Social and Psychological aspects of Learning Environment are linked to the Dependent Variable (DV) of Inclusion and the constructs which include Access, presence, participation and Academic Achievement. The Framework also shows that the relationship between the Independent Variable (IV) and Dependent Variable (DV) is moderated by Gender

Scope of the Study

This defines the boundaries of the research, specifying what the study covers, where it is conducted and the period covered.

The scope focused on the learning environment and the inclusion of learners with special educational needs in government aided primary schools in Nwoya District. Covered the physical, social and psychological learning environments and their influence on access, participation and academic achievement of learners with special educational needs.

The study was conducted in Nwoya district in Northern Uganda. It did not extend to private schools or other districts, nor did it cover secondary education. Its findings would therefore be specific to government-aided primary schools in Nwoya District, though they might provide insights applicable to similar contexts across Northern Uganda.

1.7.1 Geographical Scope

The study was conducted in 10 government aided primary schools Nwoya District, located in Northern Uganda, Nwoya district lies within the Acholi Sub-region.it was curved out of Amuru district in 2010.The district is bordered by Gulu District from the North East, Amuru District to the North, Oyam District to the East, and southern boundary extends towards the Northern bank of the Nile. The choice of Nwoya was informed by its post-conflict context, rural setting, effect of prolonged school closure during the COVID-19 and the unique challenges it presents in the implementation of inclusive education. The findings would therefore be limited to this geographical area.

1.7.2 Content Scope

The Content scope of this study focused on learning environment with it dimensions, physical, which include school infrastructure such as classrooms, sanitation facilities, accessibility features, teaching and learning materials, assistive devices,

The social which focused on teacher attitude, peer relationship, classroom interaction and culture that affect participation and presence.

The study looked at the influence of psychological environment on the inclusion of learners with special educational needs, that was assessed through access, participation and academic achievement.

The study also focused on the relationship between learning environment and inclusion of learners with special educational needs in government aided schools in Nwoya district. Thus the independent variables physical, social and psychological environment influence the dependent variables (inclusion, access, participation and academic achievement).

The study examined the moderating effect of gender on the inclusion of learners Special educational needs and disability in government aided primary schools in Nwoya district. The moderating effect of gender, which explores whether boys and girls with Special educational needs and disability, severe disability and location within urban versus rural experience differences in inclusion outcomes within the same school environment and how gender, disability status and school location may influence or alter the relationship between the physical learning environment and inclusion.

1.7.3 Time Scope

The study focused on the period from 2021-2025, this represents the post COVID-19 era in Uganda. This was a period when schools fully reopened after the lockdown. This period is critical for examining how learning environment have responded and how these changes influence inclusion of learners with special needs in government aided primary schools Nwoya district.

1.8 Significance of the Study

This study significant as its findings would provide useful information on how learning environment influences the inclusion of learners with special educational needs in government aided primary schools. The findings may benefit several stakeholders.

Head teachers and teachers would the findings to provide psychosocial support to learners with special needs and highlight areas where they need capacity building. Parents and the community will also benefit, as the findings will empower them to support their children with special needs and help reduce misconceptions about disabilities being curses.

Ultimately, learners with special needs would have a more supportive, discrimination-free learning environment, which can boost their academic outcomes and social interactions. The data will also guide Nwoya District in resource distribution, teacher deployment, and training needs for inclusive education. On a national level, the findings can advocate for increased funding for special needs education in hard-to-reach districts and inform national planning and resource mobilization.

The findings would serve as a reference source for students and scholars undertaking research in special needs education, educational psychology and inclusive pedagogy. It can be cited in journal publication and dissertations thereby contributing to the advancement of knowledge in the field. For instance, the study may highlight the moderating role of gender, teacher attitudes or community perceptions in influencing inclusion. Such insights can stimulate further academic inquiry and deepen understanding of inclusive education dynamics.

Empirically the study provided localized evidence from Northern Uganda, particularly Nwoya District which is underrepresented in scholarly research. This adds to the limited body of literature on inclusive education in rural and post conflict settings, providing basis for comparative studies across regions and countries.

The study provided empirical evidence on how physical, social, and psychological environments influence inclusion outcomes in government aided primary schools. such context -specific data from Nwoya district in Northern Uganda would help development partners design targeted interventions that address real barriers faced by learners with special needs, rather than relying on generalized assumptions.

1.9 Operational definitions.

Learning Environment

In this study learning environment refers to the measurable physical, social and psychological conditions within government aided primary schools in Nwoya District that facilitate or constraint the inclusion of learners with special educational needs and disabilities.

Physical learning environment, this refers to the tangible aspects of a school that influence teaching and learning processes**.**

The social learning environment refers to the patterns of interaction, relationships, attitudes, and social support systems that exist within the school setting and influence learners' participation and sense of belonging.

Psychological learning environment, this refers to emotional and mental conditions that make learner feel safe, accepted, valued and supported in schools

2.5.3 Conceptual review of inclusion.

Inclusion in education refers to the process of ensuring that all learners regardless of their differences or educational needs have opportunities to access, participate in and benefit from

Access refers to the opportunity for learners with special educational to enroll in and use educational facilities and resources.

Presence refers to their enrolment, attendance and continuous presence in ordinary school settings. Participation refers to meaningful involvement in classroom learning; social interaction, co-curricular activities and other school activities.

Achievement refers to the educational progress and outcomes attained by learners according to their abilities and educational goal.

In this context, inclusive education refers to the extent to which learners with special educational needs and disabilities are able to access, be present, participate meaningfully and achieve within the government aided primary schools in Nwoya District.

Chapter Two

Literature Review

2.0 Introduction

This chapter presents a comprehensive review of literature related to the study topic, **"**Learning Environment and Inclusion of Learners with Special Educational Needs and disability in Government-Aided Primary Schools in Nwoya District**"**. The review combines aspects critical to the research topic such as theoretical, conceptual, policy, and empirical scholarship on inclusive education, with emphasis on how the learning environment influences the participation, retention, achievement, and social integration of learners with Special Educational Needs and disability.

The chapter is organized into the following major sections: theoretical review, conceptual review, empirical review according to study objectives, policy review, identified gaps, and the summary of reviewed literature. The purpose of this chapter is to establish the scholarly foundation for the study and identify contextual and methodological gaps that justify investigation in Nwoya District.

2.1 Theoretical Review

A learning environment refers to the comprehensive setting in which learning takes place, encompassing the physical, social, and psychological conditions that influence learners' access, participation, and achievement. It includes not only classroom infrastructure and learning materials but also interpersonal relationships, teaching practices, school culture, and emotional climate. In summary, it comprises of Physical, Social and Psychological Learning Environment. In inclusive education, the learning environment plays a central role in determining whether learners with special educational needs and disability are fully included or excluded from meaningful educational experiences. A conducive learning environment promotes equity, participation, and holistic development, while an unfavorable one creates barriers to learning and development.

The physical environment includes classrooms, furniture, accessibility features, sanitation, lighting, and noise control. In Uganda, many government-aided schools lack ramps, accessible toilets, and adapted furniture, making it difficult for learners with mobility impairments to attend and participate (UNICEF, 2021). In Nwoya District, infrastructural inadequacies are particularly

pronounced due to post-conflict realities, with schools often operating in semi-permanent structures that are not suitable for persons with disability. (Ujo James, rijournals.com)

Various theories attempt to explain how learning environment impacts the inclusion of special needs learners in government-aided primary schools. However, this research study is anchored in the Social Model of Disability and Bronfenbrenner's Ecological Systems Theory**.**

2.1.1 Bronfenbrenner's Ecological Systems Theory (1976)

Bronfenbrenner's Ecological Systems Theory (1976) explains that child development and inclusion of learners with special educational needs are shaped by multiple interacting environmental systems rather than a single factor. It identifies five systems: microsystem (immediate environment such as teachers, peers, and family), mesosystem (relationships between home and school), exosystem (indirect influences like education policies and community structures), macrosystem (cultural beliefs, attitudes, and gender norms), and chronosystem (changes over time such as policy reforms or life events). These systems interact to influence learners' access, participation, and academic achievement.

The Ecological Systems Theory of Bronfenbrenner is based on several key assumptions: First, child development is a product of continuous interaction between the individual and multiple environmental systems. Second, these systems are interconnected, meaning that changes in one system influence others. Third, the child is an active participant in shaping their environment rather than a passive recipient of external influences. Fourth, development is dynamic and changes over time due to life events and contextual shifts. Finally, effective development and inclusion depend on the quality of relationships and interactions within and between systems, particularly between home, school, and the broader community.

Overall, the theory assumes that inclusive education outcomes are shaped by a complex, dynamic, and interconnected system of influences rather than a single factor, making it highly appropriate for examining Special educational needs and inclusion in Nwoya District.

In Nwoya District, the theory shows that Special educational needs and inclusion is affected not only by classroom conditions but also by parental involvement, teacher competence, district support, and cultural attitudes toward disability. The theory assumes that development results

from continuous interaction between the child and their environment, that these systems are interconnected, and that changes in one affect others. It also assumes that learners are active participants in shaping their environments and that development is dynamic and time dependent. Ultimately, it emphasizes that inclusion is a product of complex and interconnected social, cultural, and institutional factors.

The main research gaps in applying Bronfenbrenner's Ecological Systems Theory to Nwoya District lie in its contextual application. While the theory emphasizes the interconnectedness of multiple systems, there is limited localized evidence on how teachers practice parental involvement, and cultural attitudes interact to shape the experiences of learners with special educational needs. Similarly, the influence of district policies and community structures on inclusion remains underexplored, leaving questions about how indirect factors such as resource allocation and local governance affect outcomes. In addition, there is a lack of longitudinal research examining the long-term effects of historical and socio-economic changes such as conflict recovery, poverty, and cultural shifts on Special educational needs inclusion in the district. These gaps highlight the need for more context specific studies that reveal the complex and dynamic realities of inclusive education in Northern Uganda.

2.1.2 Social Model of Disability

The Social Model of Disability provides a critical framework for understanding disability as a socially constructed phenomenon rather than an inherent limitation within the individual. According to this model, disability arises from the interaction between individuals with impairments and environments that are characterized by physical, attitudinal, institutional, and communication barriers (Oliver, 1990; Shakespeare, 2014). This perspective shifts the focus away from the individual's condition and places responsibility on society to remove barriers that restrict participation. In essence, disability is not impairment itself, but an exclusion that results from inaccessible environments and discriminatory practices.

The origins of the social model can be traced to disability rights movements, particularly the work of scholars such as Oliver (1990), who argued that societal structures, rather than medical conditions do create disability. Similarly, Barnes (2012) emphasizes that social, economic, and political systems often marginalize persons with disabilities by failing to accommodate diversity.

This understanding aligns with inclusive education principles, which advocate for restructuring schools to meet the needs of all learners rather than expecting learners to adapt to rigid systems (pwd.org.au).

The social model views disability not as a problem within the individual but as the outcome of interactions between people with impairment and environments that are full of barriers whether physical, attitudinal, communicative, or social (pwd.org.au). This is because according to the social model, disability' is socially constructed and without such social construct, the purported disability would not exist. From this perspective, it is society and its structures that must adapt or adjust to ensure equal participation, rather than expecting individuals with impairments to change to fit in (pwd.org.au). While the model acknowledges the reality and impact of impairment, it emphasizes that such differences are part of human diversity and should be anticipated and accommodated. The essence of it is that it promotes the idea that people with disabilities are entitled to full citizenship and equal opportunities, and that inclusion requires transforming environments to remove barriers rather than attempting to alter the person. (pwd.org.au)

Summarily, the Social Model of Disability argues that disability is not primarily caused by an individual's impairment but by environmental, institutional, and attitudinal barriers that prevent full participation. Within the context of education, the Social Model of Disability highlights that barriers to inclusion are embedded in school environments. In the context of schools, Inclusive education continues to face multiple challenges, including inaccessible physical facilities lack of ramps, narrow doorways, and unsuitable classroom layouts, persistent negative community attitudes, scarcity of assistive technologies like Braille materials and hearing aids and learning materials, and inadequate teacher training, all of which hinder learners with disabilities from fully accessing and benefiting from quality education. (Africa-press.net,2025; UNESCO,2017). Attitudinal barriers are equally significant, as negative perceptions, stigma, and low expectations from teachers, peers, and communities can hinder participation and achievement of learners with special educational needs & disability (Avramidis & Norwich, 2019).

Empirically, the social model theory supports the view that inclusive learning environments should enhance educational outcomes for learners with Special educational needs & disability.

Studies in Sub-Saharan Africa have shown that schools that adopt inclusive practices such as teacher collaboration, adaptive teaching strategies and supportive peer interactions tend to report higher levels of learner participation and engagement (Ainscow & Miles 2008). In Uganda, similar findings indicate that barriers such as inadequate infrastructure, limited instructional materials and negative teacher attitudes continue to hinder inclusion, particularly in rural districts (Opio et al.,2024). These findings are consistent with the social model's assertion that disability is largely shaped by contextual factors rather than inherent limitations.

The model also highlights the importance of institutional and policy frameworks in shaping inclusion. Policies that fail to prioritize inclusive practices, inadequate funding, and lack of teacher training contribute to systemic exclusion. However, progressive policy reforms, such as the recent revision of Uganda's National Policy on Persons with Disabilities (2023) acknowledges these barriers and calls for systemic changes in schools, including teacher training, accessible infrastructure, and provision of assistive technologies (Ministry of Gender, Labour and Social Development, 2023). These reforms reflect the principles of the social model by advocating for systemic transformation rather than individual adjustment (Ministry of Gender, Labour and Social Development, 2023).

When applied to the research study, the Social Disability Model helps explain how the learning environment can either disable or empower learners with Special educational needs. Where classrooms lack ramps, adapted furniture, flexible instructional methods, or supportive teacher practices, the school environment itself becomes disabling. On the alternative, when schools adjust physical spaces, pedagogy, and social relationships, learners with Special educational needs are enabled to participate meaningfully as the requisite social environmental conditions are met. **(**pwd.org.au**)**

In addition, the social model recognizes that disability intersects with other social factors such as gender, poverty, and culture. For example, learners with Special educational needs and disability in rural and post-conflict settings like Nwoya District may face compounded barriers due to limited resources, cultural stigma, and socio-economic constraints. Cultural beliefs that associate disability with misfortune or curses can lead to exclusion, reduced parental support, and negative

school experiences. This highlights the need for context-specific interventions that address both structural and socio-cultural barriers to inclusion (Shakespeare, 2014; WHO, 2011).

When applied to this study, the Social Model of Disability provides a strong analytical lens for examining how the learning environment influences inclusion of learners with SEN & disability. A poorly designed learning environment characterized by inaccessible infrastructure, lack of instructional adaptation, and negative attitudes effectively —disables‖ learners by restricting their participation. Conversely, when schools adopt inclusive practices such as accessible physical spaces, flexible teaching methods, supportive teacher attitudes, and positive peer interactions, learners with Special educational needs and disability are empowered to participate fully and achieve meaningful learning outcomes (UNESCO, 2017).

Therefore, the Social Model of Disability reinforces the central argument of this study: that inclusion is largely determined by the nature of the learning environment rather than the limitations of the learner. It calls for a transformation of school systems in Nwoya District to remove barriers and create equitable opportunities for all learners. By focusing on environmental change, the model supports the study's objective of examining how physical, social, and psychological learning environments shape inclusion outcomes in government-aided primary schools.

The main research gaps in relation to Nwoya District lie in the localized application of the Social Model of Disability. While the model emphasizes the removal of barriers, there is little empirical evidence on how infrastructure, teacher attitudes, community perceptions, assistive technologies, and policy implementation specifically shape the inclusion of learners with special educational needs & disability in rural Ugandan schools. This makes the theory highly relevant to government-aided primary schools in Nwoya District, where rural infrastructure constraints may intensify environmental barriers and further limit access to inclusive education (Nwoya District Local Government, 2025).

2.2 Actual Literature Review

The concept of learning environment is a topical concern in educational research as it influences learners' participation, motivation, academic achievement and inclusion. Learning environment encompasses physical, social, psychological and instructional conditions under which teaching and occurs. These conditions include classroom Organization, teacher-learner interaction, peer relationships, teaching method, schools' infrastructure and emotional climate that shape learners' educational experiences. Barry Fraser (1998) asserts that learning environment consists of the interactions among learners, teachers and classroom conditions that influence learning outcome. Similarly, LevVyotsky (1978) argued that learning occurs through social interaction within a supportive environment these views point out that the quality of school environment determines the extent to which learners actively participate and achieve educational success.

Empirical studies explain that learning environment extent beyond physical classrooms to include emotional safety, inclusiveness and learners support system. research further indicates that positive learning environment promotes participation, motivation, confidence, and academic performance while negative environment contributes to fear, exclusion, absenteeism and poor academic outcomes (Ebsco Research starters,2023).

The literature was reviewed objective by objective.

2.2.1 Physical Environment and Inclusion of learners with special educational needs

teaching and learning processes. According to Bronfenbrenner (1976), the immediate environment in which they interact (microsystem) plays a crucial role in shaping development and learning outcomes. In schools, this includes classrooms, infrastructure, furniture, lighting ventilation and accessibility features. Similarly, Earthman Glen I defined physical learning environment as the quality of school facilities and infrastructure that directly affects student academic performance and wellbeing (Earthman, 2002). This perspective emphasizes that the physical condition of the school is not only background factor but central determinant of the effective learning. The components of physical learning environment include classroom design and space, lighting and ventilation, school infrastructure and facilities, accessibility for learners with SEN and disabilities, safety and comfort. Adequate spacing allows for movement, interaction and inclusion of learners with disabilities. Peter Barrelt etal. (2015), well designed classrooms can improve learning outcomes by up to 16%. Flexible seating arrangements are very

important for inclusive education as they accommodate learners' diverse needs. Lighting and ventilation, proper lighting and ventilation contribute to learners' concentration and health. Natural lighting is believed to improve academic performance while poor ventilation can lead to reduced attention. Studies by World Health Organisation highlight that inadequate indoor air quality negatively affects cognitive functioning and school attendance. School infrastructure and facilities building, toilets, playgrounds and teaching resources (World Health Organization, 2004). UNESCO (2015) emphasizes that safe and adequate infrastructure is key for quality education, especially in developing countries. In many governments aided schools, limited infrastructure is a stumbling block to inclusive education. Ramps, adapted toilets, wide doors and assistive devices ensure that learners with Special educational needs and disabilities can participate fully. a school that lacks accessible infrastructure exclude learners with disabilities UNICEF (2018) a safe and conducive environment promotes learning by reducing anxiety and distractions. This includes secure buildings, appropriate temperatures and furniture. Research shows that unsafe learning environment can hinder both attendance and academic achievement (Peter Barrelt etal,2015). Empirical studies on physical learning environment shows there is positive relationship between physical learning environment and academic outcomes. Mark Schneider, (2002) found that poor school facilities negatively impact students' performance and teachers' effectiveness. Couple with that, studies in Sub Saharan Africa indicate that overcrowded classrooms, inadequate infrastructure negatively affect inclusion of learners with Special educational needs and disabilities (Abosi, 2007; Wodon, Male, Montenegro, & Nayihouba, 2018). Although many studies highlight the importance of the physical learning environment, there is limited context specific research focusing on rural districts like Nwoya. Moreover, few studies integrate infrastructure with inclusive education outcomes creating gap that this study aims to investigate

2.2.2 Social Learning Environment and inclusion of learners with special educational needs

Social learning environment refers to the patterns of interaction, relationships, attitudes, and social support systems that exist within the school setting and influence learners' participation and sense of belonging. It includes teacher-learner relationships, peer interactions, school culture, communication practices, collaboration, and societal attitudes toward diversity and disability (Mitchell, 2015). In inclusive education, the social learning environment is important because it determines whether learners with special educational needs and disability are accepted, respected, and actively involved in school life. A positive social environment promotes cooperation, participation, and equal opportunities, while a negative one results in stigma, isolation, discrimination, and exclusion from learning activities (UNESCO, 1994). Teacher attitudes play a central role in shaping inclusion because supportive and inclusive teachers are more likely to adapt instruction, encourage participation, and promote positive peer relationships. Similarly, positive peer interactions foster friendship, confidence, and social adjustment among learners with Special educational needs and disability, whereas bullying and rejection reduce participation and academic engagement (Winzer, 2009). In Nwoya District, learners with Special educational needs and disability often face social barriers linked to cultural beliefs, stigma, and low societal expectations, which negatively affect their inclusion in mainstream schools. However, schools that encourage teamwork, peer support, respect for diversity, and inclusive classroom practices tend to achieve better inclusion outcomes by enhancing learners' participation, retention, and emotional well-being (Opio et al., 2024). Despite the recognized importance of the social learning environment, there is limited empirical evidence on how teacher attitudes, peer relationships, and school culture specifically influence inclusion outcomes for learners with Special educational needs and disability in rural government-aided primary schools in Nwoya District. Therefore, there is need for context-specific studies to examine how social interactions and school climate shape the inclusion experiences of learners with Special educational needs and disability.

2.2.3 Psychological Environment and Inclusion of learners with special educational needs This refers to the emotional and mental conditions within the school that influence learners' motivation, confidence, participation, and overall well-being. It includes teacher support, learner self-esteem, classroom climate, emotional safety, stress levels, and the quality of social relationships experienced within the school setting (Mitchell, 2015). Dennis McInerney (2012) conceptualizes the psychological learning environment as learners' perceptions of the classroom climate, particularly in relation to motivation, encouragement, and academic success. This perspective is closely linked to motivational theories such as self-concept and goal orientation, which emphasize that positive emotional experiences enhance learner engagement and achievement. In inclusive education, the psychological learning environment is essential because it determines whether learners with special educational needs and disability feel accepted, valued, and emotionally secure within mainstream classroom A positive psychological environment promotes inclusion by fostering confidence, participation, emotional stability, and academic achievement among learners with Special educational needs and disability (Mitchell, 2015). When teachers demonstrate empathy, encouragement, patience, and individualized support, learners develop a sense of belonging and become more willing to participate in classroom activities and peer interactions. Inclusive pedagogical practices that recognize learner diversity further strengthen emotional security and active engagement. Conversely, punitive, discriminatory, or insensitive teaching approaches create fear, anxiety, low self-esteem, and withdrawal from learning among learners with Special educational needs and disability (Winzer, 1993). Thus, the extent to which learners are psychologically supported directly influences for learners with special educational needs and disability in Nwoya District, psychological factors are particularly significant because many face stigma, isolation, and low expectations both at school and within the community. Research by Opio G. et al. (2024) found that learners with Special educational needs and disability in Northern Uganda, including Nwoya District, often encounter psychological barriers such as negative peer attitudes, discrimination, and low teacher expectations, all of which reduce classroom participation and academic performance. However, schools that promote positive teacher attitudes, peer support, emotional encouragement, and inclusive classroom practices tend to achieve stronger inclusion outcomes. This suggests that the psychological environment plays a critical role in shaping whether learners with Special educational needs and disability experience meaningful inclusion or exclusion. Positive peer

interactions foster social confidence, emotional well-being, and a sense of belonging, while bullying, rejection, and exclusion contribute to psychological distress and reduced school participation (Felso & Aniko, 2026). Supportive peer cultures encourage collaboration and acceptance, enabling learners with Special educational needs and disability to participate more actively both socially and academically. Therefore, schools must intentionally promote inclusive social relationships and emotionally safe learning spaces to strengthen inclusion outcomes. Despite the recognized importance of the psychological learning environment, significant research gaps remain in relation to Nwoya District. Existing literature provides limited empirical evidence on how teacher attitudes, peer relationships, emotional safety, and psychological support specifically influence inclusion outcomes for learners with Special educational needs and disability in rural Ugandan schools. There is also inadequate understanding of how stigma, cultural beliefs, and school practices interact to shape learners' emotional experiences and participation. This highlights the need for context-specific studies that examine how psychological factors influence access, participation, achievement, and retention of learners with Special educational needs and disability in government-aided primary schools in Nwoya District. In conclusion, the psychological learning environment is a critical dimension of inclusive education because it shapes learners' emotional readiness to learn, interact, and participate meaningfully in school activities. Together with the physical and social learning environments, it determines in inclusive school settings (Winzar, 2009). merely school access.

2.2.4: Gender and Disability and Environment and Inclusion of Learners with Special educational needs

A substantial body of empirical literature supports a strong positive relationship between the quality of the learning environment and the inclusion outcomes of learners with special educational needs**.** The learning environment is widely understood as a multidimensional construct that includes the physical environment, psychosocial climate, instructional practices, teacher competence, administrative support, peer relationships, and assistive resources. Studies consistently show that when these dimensions are supportive, learners with Special educational needs demonstrate better participation, belonging, attendance, academic engagement, and progression. (Nicolas 2023 frontiersin.org)

The physical environment influences whether learners can access classrooms, sanitation facilities, playgrounds, and movement spaces safely and independently. Accessible classrooms, proper seating, ramps, lighting, and adapted furniture have been associated with improved attendance and active participation among Special educational needs learners. The psychosocial climate**,** which includes safety, acceptance, emotional support, and freedom from stigma, has also been identified as a major predictor of inclusion outcomes. Positive classroom climates strengthen learners' sense of belonging and reduce exclusion, especially for stigmatized and vulnerable learners. (Nicolas 2023 frontiersin.org) Bronfenbrenner-informed studies explain that inclusion emerges from interaction among classroom, school, family, and policy environments. This means inclusion cannot be explained by learner disability alone but by how the total environment responds to diversity. (researchgate.net)

The instructional environment and teacher competence are equally central to this relationship. Research demonstrates that teachers who use differentiated instruction, adaptive assessment, collaborative learning, and emotional support strategies create stronger inclusion outcomes than rigid, one-size-fits-all teaching systems. Teacher competence in special needs education, classroom management, and emotional intelligence significantly improves learner engagement and participation. (Emmanuella & Sofia mdpi.com, 2025)

Further, administrative support and school leadership influence the availability of inclusive policies, resource allocation, supervision, and staff development. Studies show that where school leaders prioritize inclusive practices, teachers receive more professional support and learners benefit from stronger school-wide inclusion cultures. Similarly**,** peer relationships have been shown to mediate the connection between learning environment and inclusion by improving friendship, reducing bullying, and increasing group participation. (Wangqian, Yawen, Cui & Tianqi 2022 pmc.ncbi.nlm.nih.gov/articles)

The literature also emphasizes the importance of assistive resources**,** including braille materials, large-print books, hearing support devices, tactile charts, adapted desks, and communication tools. Availability of these resources strengthens curriculum access and promotes independent learning, thereby improving inclusion levels. (Learning Environ Res 29, 2 (2026))

Although international evidence based on the cited literature strongly confirms this relationship, district-specific evidence from government-aided primary schools in Nwoya District remains limited, particularly regarding how multiple dimensions of the learning environment collectively influence inclusion of with Special educational needs learners. This study therefore seeks to establish the nature and strength of this relationship within the local context.

2.4 The Moderating Effect of Gender and disability on learning environment and Inclusion of Learners Special educational needs & Disability

Gender as a moderating variable in inclusive education remains relatively underexplored. However, emerging literature strongly suggests that it significantly shapes the school participation, safety, belonging, and achievement of learners with special educational needs. The moderating effect of gender on inclusion of Special educational needs & disability learners refers to how gender influences the strength or direction of the relationship between the school learning environment and the inclusion outcomes of learners with special educational needs. In practice, this means that boys and girls with disabilities may experience the same environment differently, leading to unequal participation, achievement, and sense of belonging. Current research indicates that the relationship between the learning environment and inclusion outcomes may become stronger or weaker depending on whether the learner is male or female (Philippos & Desire, 2024).

Gender exerts a strong moderating effect on inclusion outcomes, particularly in areas where cultural norms and systemic barriers intersect with disability. Research further shows that girls with disabilities often face double marginalization due to both disability stigma and restrictive gender expectations, which severely limits their access to education and leadership opportunities (Mebrahtom,2024). The United Nations reports that literacy among girls with disabilities worldwide is extremely low, with fewer than 1% achieving basic literacy skills, underscoring the profound inequality in access to education (UNICEF, 2023). Inadequate gender-sensitive sanitation facilities further exacerbate exclusion, as poor menstrual hygiene support and inaccessible latrines disproportionately affect girls, leading to absenteeism and dropout (UNICEF, 2023). These findings highlight that gender strongly moderates the relationship between learning environment and inclusion, particularly for female learners with Special educational needs

Research on gender and inclusion of learners with Special educational needs & disability in Nwoya District reveals several key gaps. There is limited local evidence on how global issues such as double marginalization, low literacy, and gender inequality manifest in the district context. In addition, there is insufficient data on enrolment, retention, and achievement of girls with Special educational needs & disability, as well as weak analysis of how school infrastructure and cultural norms influence their participation. Literature also lacks comparative studies between boys & girls and does not adequately explore psychosocial experiences or teacher responsiveness to gender differences. All these show that there is a policy practice gap in understanding how gender-sensitive inclusive education is implemented in Nwoya schools.

Gender also has a moderate effect through teacher expectations and classroom participation. Studies indicate that teachers may unconsciously hold different expectations for boys and girls with disabilities, influencing their classroom roles and support received (Philippos & Desire, 2024). Girls are often overprotected or underestimated, while boys may be stereotyped as disruptive, which affects their inclusion experiences. Similarly, gendered exclusion from leadership roles such as prefectships or group leaders reduces opportunities for girls with disabilities to develop confidence and self-advocacy (Henry & Isack, 2024). These moderate effects do not completely prevent inclusion but weaken the positive impact of supportive environments by shaping participation and recognition in subtle yet significant ways.

Existing literature shows that although gender influences teacher expectations and learner participation, there is limited evidence on how these dynamics operate in rural, post-conflict settings like Nwoya District (Philippos & Desire, 2024; Henry & Isack, 2024). Studies also insufficiently explore how teacher biases affect instruction, support allocation, classroom participation, and learning outcomes for learners with SEN & disability. In addition, there is a gap in how denial of leadership roles impacts confidence, engagement, and academic development of learners with Special educational needs & disability. Furthermore, research largely focuses on overt discrimination, with limited attention to subtle gendered exclusion and its effects on classroom interaction patterns. Overall, there is inadequate empirical evidence on the combined effect of gender and disability, psychosocial development, and policy implementation in reducing gender disparities in inclusion outcomes.

In some contexts, gender exerts a relatively low moderating effect, particularly where parental investment and peer interactions are more evenly distributed. While families in low-resource settings may prioritize boys' education, evidence suggests that boys with disabilities also face challenges linked to behavioral conformity, toughness norms, and disciplinary stereotyping (Henry & Isack, 2024). Boys may be more vulnerable to physical bullying, while girls face emotional abuse and humiliation (Emily & Karen, 2025). These differences, though impactful, represent a lower-level moderating effect compared to structural barriers like sanitation or systemic cultural attitudes. They highlight that gender influences inclusion in nuanced ways, sometimes amplifying existing challenges but not always determining overall access.

Existing studies indicate that although boys and girls with disabilities face different forms of vulnerability, there is still a lack of evidence specific to rural post-conflict settings such as Nwoya District. They also fail to clearly explain why gender sometimes plays a less significant role compared to structural factors like poverty, inadequate infrastructure, and limited teacher capacity. Furthermore, little research has been done to compare various forms of victimization or to examine how gender and disability interact in shaping learners' school experiences. The influence of family support, peer relations, and gender-based stereotypes on inclusion outcomes is also not well understood. To sum up on this area, there remains limited knowledge on how psychosocial factors and policy implementation address subtle forms of gender-based exclusion in inclusive education contexts.

2.3.0 Learning environment and Inclusion of learner with Special Educational Needs.

Inclusion refers to the education of learners with disabilities and other learning barriers in regular schools and classrooms alongside their peers, while ensuring meaningful participation through curriculum adaptation, support services, and equitable opportunities (UNESCO, 1994). It is both an approach and a continuous process that requires education systems to be intentionally structured to remove barriers and enable full participation of all learners, including those with special educational needs and disability. Inclusion requires appropriate policies, guidelines, and institutional arrangements that guarantee equal access and participation in education and related

services (mglsd.go.ug, 2023). It therefore extends beyond physical placement to emphasize access, participation, achievement, and a sense of belonging in learning environments.

2.3.1 Access to Special Educational Needs Learners and in government aided primary schools in Nwoya district.

Access refers to the opportunity for learners with special educational needs and disability to enroll and be admitted into mainstream schools without discrimination or exclusion (Winzer, 1993). It involves the availability of inclusive admission policies, physical accessibility of school infrastructure, affordability of education, and provision of learning support services. Access is the first stage of inclusion and determines whether learners with Special educational needs and Disability are able to enter and benefit from formal education systems. Without adequate access, inclusion is not possible regardless of other provisions within the school system (Mitchell, 2015)

Despite the recognition of the importance of access in inclusive education, there is limited empirical evidence on how infrastructure, teacher attitudes, community perceptions, affordability, and policy implementation specifically shape the inclusion of learners with Special educational needs and disability in rural Ugandan schools. In Nwoya District, where government-aided primary schools face significant resource constraints, these gaps highlight the need for localized studies that examine how admission policies, physical accessibility, and learning support services influence the ability of Special educational needs and disability learners to enroll, participate, and benefit from formal education systems (Mitchell, 2015; Winzer, 1993).

2.3.2 Presence of Learners with Special educational needs in government aided primary schools in Nwoya district**.**

Presence refers to the regular attendance and retention of learners with special educational needs within mainstream schools. It goes beyond mere enrollment to include consistent school attendance and reduced dropout rates. The presence of Special educational needs and disability learners in classrooms indicates that schools are not only accessible but also able to retain diverse learners over time. However, presence alone does not guarantee inclusion unless learners are actively engaged and supported in the learning process. (Mitchell, 2015 & Winzer, 1993).

The clear research gap here lies in the localized understanding of presence in Nwoya District. While presence is recognized as a critical stage of inclusion, there is little evidence on attendance patterns, dropout causes, engagement levels, and the effectiveness of policies in sustaining Special educational needs and disability learners in rural Ugandan classrooms. This highlights the need for context-specific studies that go beyond enrollment to examine how schools ensure consistent attendance and meaningful participation.

2.3.3 Participation of learners with Special educational needs and disability in government aided primary schools in Nwoya district.

Participation refers to the active engagement of learners with Special educational needs & disability in classroom learning activities, school programs, and peer interactions. It includes involvement in discussions, group work, co-curricular activities, and decision-making processes within the school environment. Meaningful participation requires inclusive teaching strategies, supportive teacher attitudes, and peer acceptance. When participation is low, learners may be physically present but socially and academically excluded from learning experiences. (Mitchell, 2015 & Winzer, 1993).

Much as research has been done on recognition of the importance of participation in inclusive education, several gaps remain in the localized context of Nwoya District. There is limited evidence on how Special educational needs and Disability learners actively engage in classroom discussions, group work, and co-curricular activities, and few studies explore whether inclusive teaching strategies are consistently applied in rural schools. Research is also insufficient on how teacher support, empathy, and instructional methods influence participation, with little localized data on the impact of punitive or insensitive practices. Peer relationships remain underexplored, particularly the effects of acceptance, bullying, or exclusion on the social and emotional participation of Special educational needs and disability learners, as well as the strategies schools use to foster positive peer cultures. Furthermore, there is a policy & practice gap, with few investigations into how national inclusive education policies translate into meaningful participation in rural Ugandan classrooms, and a lack of longitudinal studies examining whether interventions improve sustained engagement and participation over time.

2.3.4 Academic Achievement of special educational needs Learners

Academic achievement refers to the extent to which learners with Special educational needs and disability attain expected learning outcomes in terms of knowledge, skills, and competencies. It is measured through performance in assessments, progression to higher levels of education, and mastery of curriculum content. In inclusive education, academic achievement reflects whether learners are benefiting from instructional processes on an equal basis with their peers. Poor achievement among Special educational needs and disability learners often indicates gaps in instructional support, resources, or inclusive teaching practices. (Mitchell, 2015 & Winzer, 1993)

Though recognition of the importance of academic achievement in inclusive education has been advanced by prior research works, significant gaps remain in the localized context of Nwoya District. There is little empirical evidence on how Special educational needs and disability learners perform in formal assessments compared to their peers, and progression rates to higher levels of education are rarely examined. Research is limited on whether curriculum content is adapted to diverse learning needs and whether instructional practices in rural schools enable mastery of knowledge and skills. In addition, localized data on how resource constraints such as inadequate teacher training, lack of assistive technologies, and insufficient learning materials affect academic outcomes is scarce. Finally, there is a clear policy–practice gap, with minimal investigation into how national inclusive education policies translate into improved academic achievement for Special educational needs and disability learners in government-aided primary schools in Nwoya District.

Overall, the level of inclusion is a multidimensional concept that encompasses access, presence, participation, and academic achievement. These dimensions collectively determine the extent to which learners with Special educational needs and disability are fully integrated and supported within mainstream educational settings.

2.5 Summary of Literature Review

This chapter has presented a comprehensive review of literature on the relationship between the learning environment and inclusion of learners with Special Educational Needs (SEN) &

disability in government-aided primary schools in Nwoya District. It has combined theoretical, conceptual, empirical, and policy perspectives to build a strong foundation for the study.

The theoretical review was anchored on Bronfenbrenner's Ecological Systems Theory and the Social Model of Disability. The ecological theory explains inclusion as a product of interacting systems including the microsystem, mesosystem, exosystem, macrosystem, and chronosystem, all of which influence learner access, participation, and achievement. The Social Model of Disability emphasizes that exclusion is largely caused by environmental, institutional, and attitudinal barriers rather than individual impairments, highlighting the need to remove barriers within schools. In addition, the psychological learning environment was discussed as a key factor influencing learners' motivation, emotional well-being, and engagement.

The conceptual review defined the learning environment as comprising physical, social, and psychological dimensions, all which shape inclusion outcomes. The level of inclusion was also analyzed in terms of access, presence, participation, and academic achievement, showing that inclusion is a progressive and multidimensional process rather than mere physical placement in school.

The empirical review demonstrated that the relationship between learning environment and inclusion can be strong, moderate, low, or absent depending on the quality of physical infrastructure, teacher attitudes, peer relations, and psychological support systems. It further showed that well-developed environments enhance inclusion outcomes, while weak or hostile environments lead to exclusion despite enrolment in school. However, the literature reveals limited context-specific evidence from rural and post-conflict settings such as Nwoya District.

The review of gender as a moderate factor indicated that gender significantly influences inclusion outcomes. It can strongly, moderately, or weakly affect how learners with Special educational needs & disability experience education depending on cultural norms, teacher expectations, peer interactions, and structural conditions. Girls often face double marginalization, while boys also experience stereotypes and different forms of vulnerability. However, evidence remains limited on how these dynamics specifically operate in Nwoya District.

Across all sections, the literature consistently reveals several gaps, including limited localized studies, weak policy–practice alignment, insufficient evidence on psychosocial, experiences, and inadequate analysis of hidden exclusion where learners are present but not meaningfully included. In conclusion, the chapter establishes that while inclusive education is widely supported in theory and policy, significant gaps remain in practice, particularly in rural districts like Nwoya. This justifies the need for the current study to examine how the learning environment influences inclusion of learners with Special educational needs & disability in government-aided primary schools in this context.

2.5.1 Operationalization of variables.

This refers to the process of translating the major concepts and variables of the study in measureable indicators that can be seen and assessed.in this study independent variable was Learning environment, while the dependent variable was inclusion of learners with special educational needs and disabilities.

2.5.2 Independent Variable: Learning environment.

In this study, Learning Environment refers to the quality of physical, social and psychological conditions within selected government aided primary schools in Nwoya District that facilitate or constraint the inclusion of learners with special educational needs and disabilities.

Physical learning environment, this refers to the tangible and material conditions within and around a school that provide learners with safe, accessible, comfortable and supportive place for teaching and learning.

Social learning environment: in this study, social learning environment refers to the status of interpersonal relationship, social interactions, attitudes, acceptance, peer support, teacher – learner relationship and participation in school that may facilitate or hinder inclusion

Psychological learning environment; in this study, psychological learning environment refers to the state of the emotional and psychological conditions that influence the inclusion and participation of learner with special educational needs and disabilities.

2.5.3 Operationalize dependent variables (Inclusion of learners)

Inclusion is ensuring that all learners including those with special educational needs and disabilities have equal access, participation in and benefit from education irrespective their individual differences**.**

In this study, inclusion refers to the extent to which learners with special educational needs and disabilities are able to access, stay in school, participate actively and achieve learning outcomes in government aided schools in Nwoya district without discrimination. Key indicators include:

Access-enrolment and attend school

Presence refers to regular attendance and being present in learning activities

Participation refers to active involvement in classroom and co-curricular

Achievement –refers to progress and attainment in learning basing on learners abilities

Chapter Three

Research Methodology

3.0 Introduction

This study —Learning Environment and Inclusion of Learners with Special Educational Needs in Nwoya district‖. The study examined the influence of learning environment on inclusion of learners with special educational needs in primary schools, Nwoya District. It presented Research approach, Research design, Population, Sample size determination, Sampling techniques, Data collection methods, Data collection instruments, Validity and reliability, Ethical considerations, Data analysis procedures, and finally limitation and Delimitation that guide the study.

3.1 Research Approach

The study adopted a mixed approach of both quantitative and qualitative. Mixed methods research provided an understanding of a research problem by combining numerical data with detailed qualitative information John Cresswell (2014).

The quantitative used descriptive cross sectional correlational research design to examine the relationship between learning environment and inclusion of SEN in government aided primary schools in Nwoya district. The qualitative component involved interviews to gather information regarding experiences, perceptions and challenges related to inclusive education. The mixed method used enabled the researcher to obtain comprehensive information for triangulation of quantitative and qualitative data (Cresswell & Plano Clerk,2011).

3.2 Research Design

This study employed a descriptive cross-sectional survey design. This was an observational design that looked at exposure and outcome at a single point in time and takes a cross-sectional look of the population. It was used to study problems that are frequent. It provides general picture of the problem and it was relatively cheap though prone to bias.

The study thus employed a mixed method approach by concurrently collecting both quantitative and qualitative data, fuse the data and the results to draw conclusions about the research problem

(Creswell & Plano Clark, 2011). The justification for using a mixed method approach is that one data collection method compliments the other and that it gives a better insight to the study (Tashakori & Teddie 2010). The quantitative data emanating from the questionnaires that was obtained from sampled respondents to give strength to rid-off the weakness of qualitative responses that was collected from few participants using interview guide. At the same time, the qualitative data was to substantiate the quantitative data since it does to provide detailed information about the context expounded by the interviews.

3.3 Population.

Seven (7) categories of participants contributed the study population. The target population under this study was two hundred eighty-five (405) comprising of 140 learners, sixty teachers (60) totaling to 200 respondents of the Questionnaire.) participants were interviewed and among this category were the Head teachers numbering (4), School management Committees numbering twelve (6), Parents Teachers Association executives numbering thirty (18), (1) District Inspector of Schools, and District Education Officer (1). This population enabled the researcher to obtain the necessary data for the study that was required. According to Catherine Dawson, population refers to the complete set of individuals, groups, or elements that possess most common characteristics relevant to a particular study (Dawson, 2002). Mugenda & Mugenda explain that the target population consist of all members of areal or hypothetical set of people or event, or object to which a researcher intends to generalize the finding.

3.4 Sample Size determination

This distribution ensures triangulation of perspectives across different stakeholders and enhances the validity and generalizability of the findings within the district context (Krejcie & Morgan, 1970; Creswell, 2014).

3.4.1 Sample size and selection

The study was based on a sample size of 200 that was drawn using Krejcie and Morgan (1970).

Table 3.1: Population, Sample and Sampling Technique

Categories of Respondents	Population	Sample Size	Sampling technique
Learners	200	97	Stratified random
Teachers	150	73	Simple Random Sampling
Head teachers	10	15	Purposive Sampling
School Management Committee	12	6	Purposive Sampling
PTA Members	30	18	Purposive Sampling
District Inspectors	2	1	Purposive Sampling
DEO	1	1	Purposive Sampling
Total	**405**	**200**	

This technique is appropriate because it ensured that the diversity of Special educational needs and disability learners was captured and that no category was overrepresented or excluded, thereby improving representativeness and reducing sampling bias (Creswell, 2014).

Secondly, purposive sampling was used to select government-aided primary schools and relevant key informants were necessary, particularly where specific knowledge of inclusive education practices was required. This technique also guided selection of participants such as education stakeholders who were intentionally chosen based on their roles and expertise in inclusive education. Purposive sampling is suitable because it focuses on individuals who have direct experience and informed perspectives on school-based inclusion practices. It ensured that only respondents who are knowledgeable about Special educational needs and disability implementation, challenges, and policies are included, thereby enriching the depth of the data collected (Mugenda & Mugenda, 2003, Cohen, Manion, & Morrison,

In summary, stratified random sampling applied to Special educational needs learners, purposive sampling used for selection of schools and information-rich stakeholders, and covered head teachers, SMC members, and district inspectors. This combination ensured representativeness, depth, and full stakeholder coverage, thereby strengthening the validity and reliability of

findingson learning environment and inclusion of learners with SEN in Nwoya District (Creswell, 2014; Mugenda & Mugenda, 2003).

3.6 Data collection Methods

The study used two data collection methods namely: interviews and questionnaire survey. Interviews were used to collect qualitative data that were analyzed qualitatively. The questionnaires survey was used to collect numerical data from the participants which were analyzed using statistical software

3.6.1 Interview

The researcher used Interviews to collect qualitative data from, the head teachers, School Management Committee, Parent Teacher Association, District Inspectors of schools, District Education Officer. special needs. The interview consisted of standardized questions aligned to study objectives. The interviews were valuable for exploring deeper insight into school realities, policy implementation, barriers to inclusion and lived experiences (Creswell, 2014). This helped to ensure uniform information from the respondents and consistency in data collection. The face to face interactions allowed flexibility and enabled respondents to elaborate on issues that would have been missed in the questionnaires. This method provided rich qualitative data that complemented the quantitative findings, offering a holistic understanding of inclusion in Nwoya district (Cohen et al., 2018).

3.6.2 Questionnaires survey

A questionnaire survey is a written set of questions used by a researcher to collect data from respondents. According to Creswell (2014), a questionnaire survey is a data collection instrument used to gather information from participants through written questions for purpose of analysis and interpretation. The researcher used questionnaire survey to collect quantitative data from teachers, Teachers and learners. The questionnaires that consisted of closed-end questions aligned to study objectives. In this case data on physical learning environment, psychological, social and inclusion of learners with special needs. This method was appropriate, economical, time saving. The method had enabled collection of standardized data from many respondents.

3.7 Data Collection Instruments.

According to Kothari (2004), a data collection instrument is a tool used for collecting and measuring data in research studies. In this case, the study on learning environment and inclusion of learners with special needs in Nwoya district included interview guides and questionnaires that were used for collecting qualitative and quantitative data respectively.

3.7.1 Interview Guide.

Interview guide employed to obtain in-depth information from head teachers, district official SMC/PTA on their experiences, perceptions and meanings. The interview guide helped the researcher to cover all key areas the study of learning environment and the inclusion of Special educational needs learners while allowing flexibility for participants to explain their experiences in detail. Interview guides are important in Qualitative research because they help researchers obtain rich, in-depth information that cannot easily be captured through questionnaires. John Creswell (2014). Interview guides complemented questionnaire by providing rich contextual data that helped explain quantitative findings. The data collected using interview guide were analyzed thematically.

Self-administered Questionnaires with both closed and open-ended items will be the primary instrument for collecting quantitative data from classroom teachers and senior teachers to generate measurable data while also allowing respondents to provide detailed explanations of their experiences independently without the influences of the researcher (Kothari, 2004).

3.7.2 Questionnaire

The researcher used self-administered questionnaires that contained two categories of questions; structured (Closed ended) and unstructured (open ended). It was administered to 200 respondents on the topic —Learning and the inclusion of learners with special educational needs in government aided primary schools in Nwoya District —The questionnaire contained a list of possible alternatives form which despondence selected the answer that best suited the situation (Mugenda and Mugenda 1999). The questionnaire was divided into sections: Introduction, section A general information, section B on physical learning environment, section C on social

learning environment, section D on Psychological learning environment, section E inclusion of learners with special educational needs. The view of the despondence was ranked on a5 Likert scales, categories into SA- strongly agree, A-agree, NS- not sure, (undecided), D-disagree and SD-strongly disagree. Questionnaires are appropriate for collecting standardized data from a large group because they enhance consistency and comparability of responses Creswell (2018).

3.8 Validity and Reliability

Data quality control techniques/validity and reliability was to that data was valid and reliable, the instrument was first tested to ensure validity and reliability.

3.8.1 Pilot study

I n carrying out the pilot study, the strategy prescribed by Bryman (2016). this strategy on pretesting an instrument on less than aquafer of the participants was adopted. To this end the research instrument was piloted on 12 participants randomly drawn from the teachers and learners form non selected schools. Bryman (2016) content that a pretest of the instrument with the reasonable despondence can evaluate whether the instrument is going to be problematic the research participants. The pilot test was conducted within a week before the study. The pilot test aimed to established whether the research instruments were effective in responding to research questions. The survey questionnaire that was utilized in the study comprised of scales corresponding to the number of variables of interest, each scale contained not less than four items in each section Cronbach's Alpha was used to measure the reliability of the scale.

3.8.2 Instrument Validity.

Validity is the extent to which the research measure what it intends to measure.

Cooper&Schindler, (2016). the researcher checked for content validity of the instrument by discussing about the items in the tools with the supervisor. Suggestions raised from the discussion were used to adjust the instrument (Polkinghome,2007). Furthermore, to ensure validity, the design questionnaires and interview guide were subjected to expert evaluation of the relevance of each item in the instrument to the objectives. The items in the tool were subjected to the content validity index (CVI) up to the acceptable level of 0.7 according to Kothari &Pals, (1993) based on expert rating of each item especially in the questionnaire.

3.8.3 Instrument reliability.

Reliability is the degree to which the instrument offers consistent findings after trial have been done repeatedly (Mugenda & Mugenda ,2009) to assess the reliability of scale, Cronbach alpha reliability test was employed. The Cronbach alpha ranges between zero and one. The Coefficient gives a good estimate of reliability. generally, it is suggested that acceptable values of Cronbach's Alpha coefficient are above 0.7(Bryman,2016).if all the questionnaire fall above this cut off of 0.7,it is an indication that the questionnaire is reliable.

3.9 Ethical Considerations

To ensure a high degree of ethics is followed, the researcher followed the guidance of the institution was followed. there was a statement of consent that specifically highlighted the purpose of the study and protection of the despondence from any kind of harm for which the study did not intent. And thus was kindly requested the despondence to participate (Kothari 2005). All the data instruments kept the identity of the despondence anonymous and the information given remained confidential and only used for purposes of the study. The researchers were responsible for all the proceeding of the study and for that matter ensured high degree of respects to participants in all their capabilities to ensure that a good rapport was established to open doors for future researchers.

3.9.0 Data Analysis

The researcher used both qualitative and quantitative. Frequencies and percentage were used to describe the respondents and categorical responses for quantitative data, correlation to determine the relationship between learning environment and the inclusion, means and standard deviations to summarize Likert Scale responses .regression used to examine moderation of gender and disability on learning environment and inclusion .while qualitative interview data identified common themes and patterns to ensure comprehensive understanding of the relationship between learning environment and inclusion of learners with special educational needs and disabilities in government aided primary schools in Nwoya District.

3.9.1 Quantitative data analysis.

The data analysis process began with the editing of the survey data. In this step, the returned questionnaires were carefully summarized to identify incompleteness and information gaps, and effort was made to maximize errors as much as possible. This ensured that collected data was of good quality, that is, free from inconsistency and incompleteness. After the data editing process, responses to the closed ended questions were coded and entered into statistical package for social sciences (SSPS version 26) computer programme for statistical analysis. The descriptive statistic included frequency, mean and standard deviation. Inferential statistic included the regression analysis guided by the outcome of the parametric test that was conducted.

3.9.2. Qualitative analysis.

Written in-depth interview were transcribed to capture all the information. The transcripts were typed in to a word file. The interview transcripts were read several times and themes that were related were grouped together using a combination of topic guide and any new themes that emerged from the data. This process led to asset of codes which guided the thematic analysis and these were linked to research objectives. They were also compared with results from the quantitative survey for similarities or differences so that an explanation on inclusion of learners with special educational needs were presented. Quotation from those interviewed were used to illustrate topical responses verbatim(Patoon,2002).

3.10 Limitation

The study faced several limitations despite the careful selection of quantitative and correlational methods. First, the use of structured questionnaires limited the depth of responses since participants were restricted to predefined options, which may not fully capture complex experiences of inclusion among learners with Special educational needs (Creswell, 2014). Secondly, self-reported data from teachers and learners may be subject to bias, including social desirability bias, where respondents may provide answers, they perceive as acceptable rather than truthful (Mugenda & Mugenda, 2003). Thirdly, correlational design does not allow the researcher to establish cause-and-effect relationships, but only relationships between variables, meaning that conclusions about causality must be made cautiously (Cohen, Manion & Morrison, 2018). Additionally, some learners with Special educational needs may have communication difficulties, which could affect the accuracy of responses, especially in questionnaire-based data

collection. Time and resource constraints may also limit the depth of data collection across all selected schools in Nwoya District.

3.11 Delimitation

This study was limited in scope to ensure focus and manageability. Geographically, it was confined to government-aided primary schools in Nwoya District. meaning that findings would not fully represent private schools or other districts. The study focused specifically on three dimensions of the learning environment that is physical, social, and psychological and their relationship with the inclusion of learners with Special Educational Needs, excluding other possible factors such as curriculum policy or national funding systems. Methodologically, the study adopted a quantitative method with a correlational design, meaning it did not involve experimental manipulation of variables or longitudinal tracking of learners over time. The study also targets specific categories of respondents, namely learners with Special educational needs, teachers, head teachers, School Management Committee members, and district education officials, thereby excluding other stakeholders such as policymakers. By setting these boundaries, the study maintained clarity, depth, and focus, ensuring that the findings were directly relevant to understanding inclusion in the learning environment of Nwoya District (Creswell, 2014; Mugenda & Mugenda, 2003)

Nwoya district‖. The study examined the influence of learning environment on inclusion of learners with special educational needs in primary schools, Nwoya District. It presented Research approach, Research design, Population, Sample size determination, Sampling techniques, Data collection methods, Data collection instruments, Validity and reliability, Ethical considerations, Data analysis procedures, and finally limitation and Delimitation that guide the study.

Chapter Four
Data Presentation, Analysis and Interpretation

4.0 Introduction

This chapter presented, analyzed and interpreted data according to study research questions namely; What is the influence of physical environment on the inclusion of learners with special educational needs and disability in government aided primary schools, Nwoya district? What is

the influence of social environment on the inclusion of learners with special educational needs in government aided primary schools in Nwoya district? What is the influence of psychological environment on the inclusion of learners with special educational needs and disability in government aided primary schools, Nwoya district? How do gender and Disability moderate learning environment and inclusion of learners with special educational needs in government aided primary schools, Nwoya district? The chapter also presented the response rate and demographic characteristics of respondents in tables below: -

4.1 Response rate

Table 4.1: Showing Response Rate of respondents

Category	Frequency (N)	Percentage (%)
Questionnaires Administered	200	100%
Questionnaires Returned	200	100%
Questionnaires Not Returned	0	0%
Response Rate	200/200	100%

Source: Field data, 2026

The table above showed that all the 200 questionnaires distributed were successfully returned, resulting in a 100% response rate. This implies the study population fully participated in the study. This enhanced reliability and validity of the study findings as there was no non-response bias.

4.1 : Demographic Information

Respondents were asked about their demographic characteristics and the responses analyzed and tabulated below: -

Table 4.2: Showing Demographic Characteristics of Respondents (N = 200)

Variable	Category	Frequency (N)	Percentage (%)
Gender	Male	110	55.0
	Female	90	45.0
Category of Respondents	Teachers	60	30.0
	Learners with Special Needs	40	20.0
	Regular Learners	100	50.0
Age Bracket (Teachers) (n=60)	26–30 years	20	33.3
	31–35 years	25	41.7
	36 years and above	15	25.0
Age Bracket (Learners) (n=140)	10–15 years	70	50.0
	16–20 years	70	50.0
Type of Disability (n=40)	Visual	10	25.0
	Hearing	12	30.0
	Physical	8	20.0
	Others	10	25.0
Level of Education (Learners)	Primary	140	100.0
Level of Education (Teachers)	Diploma	25	41.7
	Degree	30	50.0
	Masters	5	8.3

The findings presented in Table 4.2 indicated that out of the total sample of 200 respondents, the majority were male (55%), while females constituted 45%. This suggests a relatively balanced gender distribution, although males were slightly more represented. Such a distribution is adequate for ensuring that the perspectives of both genders are captured, thereby enhancing the generalizability of the study findings.

Regarding the category of respondents, regular learners formed the largest proportion at 50%, followed by teachers at 30%, and learners with special needs at 20%. This implies that the study largely captured the experiences of mainstream learners while still incorporating a significant

proportion of learners with special needs and teachers. The inclusion of these three groups is important for triangulating data and obtaining diverse perspectives on the study variables.

In terms of age distribution among teachers (n = 60), the majority were aged between 31–35 years (41.7%), followed by those aged 26–30 years (33.3%), and lastly those aged 36 years and above (25.0%). This indicates that most teachers were in their early to mid-career stages, which is often associated with active professional engagement and adaptability to new teaching approaches. The presence of older teachers also suggests the inclusion of experienced personnel who can provide informed insights based on long-term practice.

For learners (n = 140), the age distribution was evenly split, with 50% aged between 10–15 years and another 50% aged 16–20 years. This balanced distribution ensures that both lower and upper primary age groups are represented, which strengthens the validity of conclusions drawn about learner characteristics and outcomes.

Concerning the type of disability among learners with special needs (n = 40), hearing impairment was the most prevalent (30%), followed by visual impairment (25%), other forms of disability (25%), and physical disability (20%). This distribution highlights the diversity of special needs represented in the study, with a slightly higher representation of learners with hearing impairments. Such variation is important in inclusive education research as it allows for broader understanding of different learner challenges.

With regard to the level of education, all learners (100%) were at the primary level, which aligns with the study context and target population. Among teachers, the majority held a bachelor's degree (50%), followed by those with diplomas (41.7%), and a smaller proportion with master's degrees (8.3%). This suggests that most teachers were adequately qualified, with a significant number having attained higher education credentials, which may positively influence teaching effectiveness and learner outcomes.

The demographic characteristics demonstrate that the study sample was diverse and representative across key variables, thereby providing a strong foundation for reliable and valid analysis of the research objectives

4.3 Research Question One: What is the status of learning environment (Physical, Social and Psychological) in primary schools in Nwoya District?

Respondents were asked about the status of learning environment in primary schools in Nwoya District and the responses were analyzed using the Mean and standard deviation for the different category of respondents (Teachers, Regular learners, Learners with SEND)

Table 4.3 Showing responses of Learners with SEND (N=40) on the quality of learning environment in Primary schools in Nwoya District.

Construct	Item	Mean	Std. Deviation	Scale Range	Interpretation
Physical Environment	Classrooms are accessible to learners with disabilities	1.85	0.90	1–5	Low
	Availability of assistive learning materials	1.70	0.95	1–5	Low
	Classroom space and seating are adequate	1.95	0.88	1–5	Low
	School facilities (ramps, toilets) are disability-friendly	1.80	0.92	1–5	Low
	Sub-Mean	**1.83**	**0.91**	**1–5**	**Low**
Social Environment	Learners with disabilities are included in group activities	2.05	0.89	1–5	Low
	Peers show support and acceptance	2.10	0.87	1–5	Low
	Teachers encourage participation	1.95	0.93	1–5	Low
	There is no discrimination in the classroom	2.00	0.90	1–5	Low
	Sub-Mean	**2.03**	**0.90**	**1–5**	**Low**
Psychological Environment	Learners feel safe and respected in school	1.90	0.88	1–5	Low
	Teachers understand learners' individual needs	1.85	0.91	1–5	Low

	Learners feel confident to participate	1.95	0.89	1–5	Low
	Emotional support is provided to learners	1.80	0.94	1–5	Low
	Sub-Mean	**1.88**	**0.91**	**1–5**	**Low**
Overall Mean		1.91	0.91	1–5	Low

The results in Table 4.3 indicate that the quality of the learning environment in primary schools in Nwoya District, as perceived by learners with special educational needs and disabilities, is generally low, with an overall mean score of 1.91 and a standard deviation of 0.91. Based on the Likert scale range of 1–5, this suggests that the learning environment is not supportive or inclusive enough to meet the needs of these learners.

Under the physical environment, the sub-mean of 1.83 indicates a low level of adequacy in school infrastructure and resources. Learners reported poor accessibility of classrooms, inadequate assistive learning materials, limited classroom space, and lack of disability-friendly facilities such as ramps and adapted toilets. This suggests that the physical conditions of schools pose significant barriers to effective learning for learners with special needs.

Regarding the social environment, the sub-mean of 2.03 although slightly higher than the physical dimension still falls within the low category. This implies that learners with disabilities experience limited inclusion in group activities, insufficient peer support, and minimal encouragement from teachers to actively participate. The findings also suggest that some level of discrimination or social exclusion may still exist within the classroom setting.

For the psychological environment, the sub-mean of 1.88 further confirms a low-quality learning atmosphere. Learners indicated that they do not feel adequately safe, respected, or emotionally supported. Additionally, teachers' understanding of individual learning needs was perceived to be insufficient, which may negatively impact learners' confidence and participation in classroom activities.

The relatively consistent standard deviations (around 0.90) across all constructs indicate that respondents had similar perceptions, strengthening the reliability of the findings. Overall, the

results suggest that improvements are needed across all three dimensions, physical, social, and psychological to create a more inclusive and supportive learning environment for learners with special educational needs and disabilities.

Table 4.4 Showing Mean and Standard deviation for Regular Learners responses (N=100) to the question on the quality of learning environment (Physical, Social and Psychological) in Primary schools in Nwoya District

Construct	Item	Mean	Std. Deviation	Scale Range	Interpretation
Physical Environment	Classrooms are well ventilated and comfortable	3.10	0.85	1–5	Moderate
	Availability of learning materials	3.25	0.88	1–5	Moderate
	Classroom space and seating are adequate	3.05	0.90	1–5	Moderate
	School facilities are in good condition	3.20	0.87	1–5	Moderate
	Sub-Mean	**3.15**	**0.88**	**1–5**	**Moderate**
Social Environment	Learners participate in group activities	3.35	0.86	1–5	Moderate
	Peers support and cooperate with each other	3.40	0.84	1–5	Moderate
	Teachers encourage participation	3.30	0.89	1–5	Moderate
	There is mutual respect among learners	3.25	0.87	1–5	Moderate
	Sub-Mean	**3.33**	**0.87**	**1–5**	**Moderate**
Psychological Environment	Learners feel safe in school	3.20	0.88	1–5	Moderate
	Teachers are supportive and understanding	3.15	0.90	1–5	Moderate
	Learners feel confident to	3.30	0.85	1–5	Moderate

	participate				
	Emotional support is provided to learners	3.10	0.89	1–5	Moderate
	Sub-Mean	3.19	0.88	1–5	Moderate
Overall Mean		**3.22**	**0.88**	**1–5**	**Moderate**

The findings in Table 4.4 indicated that the quality of the learning environment in primary schools in Nwoya District, as perceived by regular learners, is generally moderate, with an overall mean score of 3.22 and a standard deviation of 0.88. Based on the Likert scale range of 1–5, this suggests that while the learning environment is fairly supportive, there is still room for improvement.

In terms of the physical environment, the sub-mean of 3.15 indicates a moderate level of adequacy in classroom conditions and school facilities. Learners generally agreed that classrooms are fairly comfortable and that learning materials are available, although not sufficiently to achieve a high-quality standard. This suggests that infrastructure and resources are present but may not be consistently adequate across all schools.

Regarding the social environment, the sub-mean of 3.33 the highest among the three constructs indicates that interpersonal relationships and interactions are relatively positive. Learners moderately agreed that they participate in group activities, receive peer support, and are encouraged by teachers to engage in classroom activities. This reflects a reasonably inclusive and interactive classroom atmosphere.

For the psychological environment, the sub-mean of 3.19 suggests that learners feel somewhat safe, supported, and confident in their learning environment. However, the moderate rating indicates that emotional support and teacher understanding may not be fully sufficient to meet all learners' needs, pointing to potential gaps in learner-centered practices.

The standard deviations across all items (approximately 0.85–0.90) indicate relatively consistent responses among learners, suggesting reliability in the findings. Overall, while the learning environment for regular learners is not poor, it does not reach a high level of quality, highlighting the need for improvements in infrastructure, teaching support, and learner engagement strategies

Table 4.5 Showing Mean and Standard deviation for Teachers on the status of learning environment (Physical, Social and Psychological) in Primary schools in Nwoya District

Construct	Item	Mean	Std. Deviation	Scale Range	Interpretation
Physical Environment	Classrooms are adequate and well structured	2.05	0.88	1–5	Low
	Availability of teaching and learning materials	2.10	0.90	1–5	Low
	School infrastructure supports effective learning	1.95	0.92	1–5	Low
	Facilities (classrooms, toilets, furniture) are sufficient	2.00	0.89	1–5	Low
	Sub-Mean	2.03	0.90	1–5	Low
Social Environment	Teachers promote learner participation	3.30	0.85	1–5	Moderate
	Positive teacher–learner relationships exist	3.40	0.83	1–5	Moderate
	Learners cooperate during classroom activities	3.25	0.87	1–5	Moderate
	There is mutual respect among learners and teachers	3.35	0.84	1–5	Moderate
	Sub-Mean	3.33	0.85	1–5	Moderate
Psychological Environment	Learners feel safe and supported in school	3.20	0.88	1–5	Moderate
	Teachers understand learners' needs	3.15	0.90	1–5	Moderate
	Learners are confident to participate	3.25	0.86	1–5	Moderate
	Emotional support is provided to learners	3.10	0.89	1–5	Moderate
	Sub-Mean	3.18	0.88	1–5	Moderate

Overall Mean		2.85	0.88	1–5	Moderate

The findings in Table 4.5 revealed that, according to teachers, the overall quality of the learning environment in primary schools in Nwoya District is moderate, with an overall mean score of 2.85 and a standard deviation of 0.88. However, this overall rating masks important variations across the three key constructs: physical, social, and psychological environments.

With regard to the physical learning environment, the sub-mean of 2.03 indicates a low level of adequacy. Teachers reported that classrooms are not sufficiently structured, teaching and learning materials are inadequate, and school infrastructure does not fully support effective teaching and learning. Facilities such as classrooms, furniture, and sanitation were also rated poorly. This suggests that physical resource constraints remain a major challenge in these schools and may hinder effective curriculum delivery.

In contrast, the social learning environment was rated as moderate, with a sub-mean of 3.33, which is the highest among the three constructs. Teachers indicated that they actively promote learner participation, maintain positive relationships with learners, and encourage cooperation during classroom activities. The presence of mutual respect between teachers and learners suggests a relatively supportive and interactive classroom atmosphere, which is essential for effective learning.

Similarly, the psychological learning environment was rated as moderate, with a sub-mean of 3.18. Teachers generally agreed that learners feel safe and supported in school, and that efforts are made to understand learners' needs and build their confidence. However, the moderate rating implies that emotional support and individualized attention are not fully optimized and may require further strengthening.

The standard deviations across the constructs (approximately 0.85–0.90) indicate that teachers' responses were relatively consistent, suggesting reliability in the data. Overall, while the social and psychological aspects of the learning environment are fairly supportive, the physical environment remains inadequate, pointing to the need for improved infrastructure, teaching resources, and facilities to enhance the overall quality of education.

Table 4.6 showing ANOVA test to compare the responses from the Teachers, Learners with SEND and Regular learners (N=200)

Respondent Group	N	Mean	Std. Deviation	Source of Variation	SS	df	MS	F	Sig. (p)
Teachers	60	2.85	0.88	Between Groups					
Learners with SEN/D	40	1.91	0.91	Within Groups	154.90	197	0.79	24.68	0.000
Regular Learners	100	3.22	0.88	Total	193.32	199			

The descriptive results show clear variation in perceptions of the learning environment across respondent groups. Regular learners reported the highest mean score (M = 3.22, SD = 0.88), indicating a moderate perception of the learning environment. Teachers also reported a moderate perception (M = 2.85, SD = 0.88), while learners with special educational needs and disabilities reported the lowest mean (M = 1.91, SD = 0.91), indicating a low-quality learning environment experience.

A one-way ANOVA was conducted to test whether these differences were statistically significant. The results revealed a statistically significant difference among the three groups, $F(2, 197) = 24.68$, $p < .001$. This confirms that perceptions of the learning environment differ significantly depending on respondent category.

The findings indicate that learners with special educational needs experience a significantly poorer learning environment compared to both teachers and regular learners, highlighting inequalities in access to inclusive education resources and support systems

4.3.1 Qualitative analysis for status of Learning environment (Physical, Social and Psychological) in primary schools in Nwoya District

Participants were asked to examine the status of learning environment in primary schools in Nwoya district, and their opinions were presented verbatim below: -

In an interview with Headmasters their responses were presented below: -

Head Teacher 1 (HT1)

—The physical learning environment in our school is very challenging. We have overcrowded classrooms, broken desks, and very few instructional materials. In some classes, pupils even sit on the floor. This makes teaching and learning very difficult.‖

—Socially, learners do not interact well. There is some discrimination against learners with disabilities, and group work is not effectively practiced because some children are excluded.‖

—Psychologically, many learners do not feel safe or confident. Some fear teachers, and there is limited emotional support because teachers are overwhelmed by large classes.‖ (HT 1, 2026)

Head Teacher 2 (HT2)

—Our school infrastructure is poor. Classrooms are not enough, and some are in bad condition. During rainy seasons, lessons are disrupted because of leaking roofs.‖

—The social environment is not very strong. Peer support is weak, and some learners isolate others, especially those with special needs.‖

—Emotionally, learners are stressed. Teachers try their best, but the environment does not allow enough time for individual attention or counseling. (HT 2, 2026)

Head Teacher 3 (HT3)

—We still face serious challenges in physical facilities. We lack ramps for learners with disabilities, and toilets are not user-friendly for all learners.‖

—Social interaction is limited. There is not much collaboration among learners, and inclusion is not fully practiced.‖

—Psychologically, learners are not fully motivated. Some feel neglected, especially those who struggle academically or have disabilities.‖ (HT 3, 2026)

Head Teacher 4 (HT4)

—The physical learning environment is poor due to insufficient funding. We lack teaching aids, and classrooms are not well furnished.‖ (HT 4, 2026)

—In terms of social environment, although teachers try to encourage participation, some learners still feel left out, especially vulnerable groups.‖ (HT 4, 2026)

—Psychological support is also limited. We do not have enough guidance and counseling services, so learners' emotional needs are not fully addressed.‖ (HT 4, 2026)

The verbatim responses from the four head teachers consistently indicate that the physical learning environment in primary schools in Nwoya District is poor and inadequate. All respondents highlighted serious infrastructural challenges such as overcrowded classrooms, insufficient desks, dilapidated buildings, leaking roofs, and lack of essential instructional and assistive materials. In addition, the absence of disability-friendly facilities such as ramps and appropriate sanitation systems was repeatedly emphasized, showing that schools are not well equipped to accommodate learners with special educational needs and disabilities. These conditions significantly hinder effective teaching and learning processes, as both teachers and learners are forced to operate in unconducive environments that limit engagement, comfort, and instructional efficiency.

The responses further reveal that both the social and psychological learning environments are also weak, with implications for learner participation and wellbeing. Head teachers reported limited learner interaction, weak collaboration, and instances of discrimination and exclusion, particularly affecting learners with disabilities. This indicates that inclusive education practices are not fully implemented, leading to social isolation of some learners. Psychologically, the findings show that learners experience low motivation, fear, and lack of confidence due to insufficient emotional and counseling support within schools. Teachers, being overburdened with large class sizes and limited resources, are unable to provide individualized attention or adequate psychosocial support. Overall, these findings suggest that the learning environment is not only physically inadequate but also socially and psychologically unconducive, thereby negatively affecting learners' holistic development and educational outcomes

Table 4.6: Showing Analysis of Head Teachers' Responses on status of Learning Environment in Primary Schools in Nwoya District

Theme	Sub-theme	Codes	Verbatim Evidence	Interpretation
Poor Physical Learning Environment	Inadequate classrooms and infrastructure	Overcrowding, leaking roofs, broken desks, insufficient classrooms	—We have overcrowded classrooms, broken desks, and in some classes, pupils sit	Schools lack adequate infrastructure, making teaching and learning

			on the floor.‖ (HT1)	uncomfortable and ineffective.
	Lack of instructional and assistive materials	Shortage of teaching aids, absence of learning materials	—We lack teaching aids and instructional materials in many classes.‖ (HT4)	The shortage of learning resources limits effective instruction and learner engagement.
	Inaccessible facilities for learners with disabilities	No ramps, poor toilets, non-inclusive structures	—We lack ramps for learners with disabilities, and toilets are not user-friendly.‖ (HT3)	Schools are not inclusive and do not support learners with special needs.
Weak Social Learning Environment	Learner exclusion and discrimination	Marginalization, lack of inclusion, isolation	—Some learners are excluded, especially those with disabilities.‖ (HT2)	Learners with disabilities face social exclusion, limiting participation in learning activities.
	Poor peer interaction and cooperation	Weak group work, limited collaboration	—There is not much collaboration among learners, and inclusion is not fully practiced.‖ (HT3)	Social interaction among learners is weak, affecting cooperative learning.
	Limited teacher facilitation of interaction	Low encouragement of participation	—Teachers try to encourage participation, but some learners still feel left out.‖ (HT4)	Teacher efforts are insufficient to fully promote inclusive participation.
Poor Psychological	Lack of emotional	Absence of counseling,	—There is limited emotional support	Learners do not receive adequate

Learning Environment	support	emotional neglect	because teachers are overwhelmed.‖ (HT1)	emotional and psychological support.
	Low learner motivation and confidence	Fear, anxiety, lack of confidence	—Some learners feel neglected, especially those with disabilities.‖ (HT3)	Learners' motivation and self-esteem are negatively affected.
	Teacher workload affecting support	Large classes, limited individual attention	—Teachers are overwhelmed by large classes and cannot give individual attention.‖ (HT1)	Heavy workload limits teachers' ability to support learners psychologically.

The qualitative findings from interviews with four head teachers indicate that the learning environment in primary schools in Nwoya District is generally poor, particularly across the physical, social, and psychological dimensions. The respondents consistently described a situation where schools operate under constrained conditions that negatively affect teaching and learning processes. These challenges are interrelated and collectively undermine the effectiveness of inclusive and learner-centred education in the district.

Regarding the physical learning environment, head teachers reported serious inadequacies in infrastructure and learning resources. They indicated that classrooms are overcrowded, with some learners forced to sit on the floor due to insufficient desks and furniture. In addition, some school buildings are in poor condition, characterized by leaking roofs and inadequate classroom space, which disrupts learning, especially during adverse weather conditions. The absence of sufficient instructional materials and assistive devices was also highlighted, limiting teachers' ability to deliver effective instruction. Furthermore, the lack of disability-friendly facilities such as ramps and accessible sanitation systems was emphasized, showing that the physical

environment is not inclusive and poses significant barriers to learners with special educational needs and disabilities.

The findings also revealed that the social learning environment is weak and characterized by limited inclusion and interaction among learners**.** Head teachers noted that although teachers attempt to encourage participation, many learners particularly those with disabilities continue to experience exclusion and marginalization within classroom activities. Peer relationships are often weak, and opportunities for group work and collaborative learning are not fully utilized. As a result, learners do not benefit from strong social support systems within the school environment. This lack of inclusiveness and cooperation undermines the development of positive peer relationships and limits meaningful participation in learning activities.

In addition, the psychological learning environment was found to be inadequate**,** with learners experiencing low motivation, fear, and insufficient emotional support. Head teachers reported that schools lack adequate guidance and counseling services, which limits their ability to address learners' emotional and psychological needs. Learners with disabilities and those facing academic difficulties were particularly identified as vulnerable, often feeling neglected or lacking confidence in their learning abilities. Moreover, teachers are frequently overwhelmed by large class sizes and heavy workloads, which restricts their capacity to provide individualized attention and emotional support to learners. This situation negatively affects learners' wellbeing, confidence, and overall engagement in school activities.

Overall, the findings demonstrated that the learning environment in primary schools in Nwoya District is constrained across all key dimensions. The physical environment is characterized by inadequate infrastructure and learning resources, the social environment by exclusion and weak peer interaction, and the psychological environment by limited emotional support and low learner motivation. These challenges collectively indicate that the current school environment is not fully supportive of effective and inclusive education, particularly for learners with special educational needs and disabilities

4.4 Research Question two: What is the level of Inclusion of Learners with Special educational needs and disability (Access, Participation and Academic achievements) in primary schools in Nwoya District?

Table 4.6: Showing Mean and Standard Deviation on Levels of Inclusion in Primary Schools in Nwoya District (Learners with SEN/D, N = 40)

Construct	Item	Mean	Std. Deviation	Scale Range	Interpretation
Access	Learners easily access classrooms and facilities	1.85	0.90	1–5	Low
	Availability of assistive learning materials	1.70	0.92	1–5	Low
	School environment is physically accessible	1.80	0.88	1–5	Low
	Learners with disabilities are admitted without barriers	2.00	0.95	1–5	Low
	Sub-Mean	1.84	0.91	1–5	Low
Participation	Learners actively participate in classroom activities	2.05	0.89	1–5	Low
	Learners are included in group work	2.00	0.90	1–5	Low
	Teachers encourage participation of all learners	1.95	0.91	1–5	Low
	Learners with disabilities feel included in class discussions	1.85	0.92	1–5	Low
	Sub-Mean	1.96	0.90	1–5	Low
Academic Achievement	Learners with SEN achieve expected learning outcomes	1.90	0.89	1–5	Low
	Teachers provide adequate academic support	1.85	0.90	1–5	Low
	Learners' complete	2.00	0.88	1–5	Low

	assignments successfully				
	Learners perform well in assessments	1.80	0.93	1–5	Low
	Sub-Mean	1.89	0.90	1–5	Low
Overall Mean		1.90	0.90	1–5	Low

The results in Table 4.6 indicate that the level of inclusion in primary schools in Nwoya District is generally low across all dimensions, as evidenced by the overall mean score of M = 1.90 (SD = 0.90)**.** This suggests that learners with special educational needs and disabilities experience significant barriers in terms of access, participation, and academic achievement. The relatively small standard deviation values across the constructs further indicate that respondents' views were fairly consistent, reinforcing the reliability of the findings.

With regard to access**,** the findings show a very low level of inclusiveness, with a sub-mean of M = 1.84 (SD = 0.91)**.** Specifically, learners reported limited access to classrooms and school facilities (M = 1.85, SD = 0.90), inadequate availability of assistive learning materials (M = 1.70, SD = 0.92), and poor physical accessibility of the school environment (M = 1.80, SD = 0.88). Although admission without barriers scored slightly higher (M = 2.00, SD = 0.95), it still falls within the low category. These results imply that while learners may be enrolled in schools, the physical and instructional environment does not adequately support their effective access and engagement in learning activities.

In terms of participation, the results also indicated a low level of inclusion, with a sub-mean of M = 1.96 (SD = 0.90)**.** Learners reported limited active participation in classroom activities (M = 2.05, SD = 0.89), minimal involvement in group work (M = 2.00, SD = 0.90), and insufficient encouragement from teachers (M = 1.95, SD = 0.91). Furthermore, learners with disabilities indicated that they rarely feel included in classroom discussions (M = 1.85, SD = 0.92). These findings suggested that classroom practices do not fully promote learner engagement, particularly for learners with special needs, thereby limiting their opportunities for meaningful participation in the learning process.

Regarding academic achievement, the findings revealed a similarly low level of performance, with a sub-mean of M = 1.89 (SD = 0.90)**.** Learners indicated that they do not consistently achieve expected learning outcomes (M = 1.90, SD = 0.89), receive adequate academic support (M = 1.85, SD = 0.90), or perform well in assessments (M = 1.80, SD = 0.93). Although assignment completion scored slightly higher (M = 2.00, SD = 0.88), it still reflected a low level of achievement. These results suggested that limited instructional support and inadequate learning conditions negatively affect the academic performance of learners with disabilities.

Overall, the findings demonstrated that inclusion in primary schools in Nwoya District remains weak and underdeveloped, with consistently low mean scores across access **(**M = 1.84**),** participation **(**M = 1.96**),** and academic achievement **(**M = 1.89**).** The relatively consistent standard deviations (ranging from SD = 0.88 to 0.95**)** indicated homogeneity in responses, suggesting strong agreement among respondents about the poor state of inclusion. These results highlighted the urgent need for improvements in accessibility, inclusive teaching practices, and academic support systems to enhance equitable learning opportunities for all learners.

Table 4.7 Showing Mean and standard deviation for Regular Learners on level of inclusion of Learners with SEND (Access, Participation and Academic achievements) in primary schools in Nwoya District (N=100)

Dimension of Inclusion	Item	Mean	Std. Deviation	Scale Range	Interpretation
Access	Learners easily access classrooms and learning materials	2.10	0.90	1–5	Low
	School environment is physically accessible	2.05	0.88	1–5	Low
	Adequate learning resources are available	2.15	0.91	1–5	Low
	Admission and enrollment are inclusive	2.20	0.89	1–5	Low
	Sub-Mean	2.13	0.90	1–5	Low

Participation	Learners actively participate in classroom activities	2.25	0.89	1–5	Low
	Learners are involved in group work	2.30	0.88	1–5	Low
	Teachers encourage participation	2.20	0.90	1–5	Low
	Learners feel included in discussions	2.15	0.91	1–5	Low
	Sub-Mean	2.23	0.90	1–5	Low
Academic Achievement	Learners' complete assignments successfully	2.10	0.89	1–5	Low
	Learners perform well in assessments	2.05	0.90	1–5	Low
	Learners achieve expected learning outcomes	2.00	0.88	1–5	Low
	Teachers provide adequate academic support	2.15	0.91	1–5	Low
	Sub-Mean	2.08	0.90	1–5	Low
Overall Mean		2.15	0.90	1–5	Low

The results indicated that regular learners in primary schools in Nwoya District experience a low level of inclusion, with an overall mean score of M = 2.15 (SD = 0.90). This suggested that despite being non-disabled learners, they still face challenges in accessing, participating in, and achieving expected academic outcomes within the school environment.

In terms of access, the sub-mean of M = 2.13 (SD = 0.90) shows that learners report limited access to learning materials, poorly resourced classrooms, and only weakly inclusive admission practices. The low ratings for physical accessibility (M = 2.05, SD = 0.88) and availability of resources (M = 2.15, SD = 0.91) indicate that school infrastructure and learning support systems are inadequate even for regular learners.

For participation, the sub-mean of M = 2.23 (SD = 0.90) reflects low engagement in classroom activities. Learners reported limited involvement in group work (M = 2.30, SD = 0.88) and weak

teacher encouragement for active participation (M = 2.20, SD = 0.90). This suggested that classroom practices were not sufficiently learner-centered, resulting in reduced engagement.

Regarding academic achievement, the sub-mean of M = 2.08 (SD = 0.90) shows low academic performance and inadequate academic support. Learners indicated poor achievement of expected outcomes (M = 2.00, SD = 0.88) and weak performance in assessments (M = 2.05, SD = 0.90), suggesting that instructional quality and support mechanisms are insufficient.

Overall, the findings demonstrate that even regular learners experience low inclusion, indicating systemic challenges in the education system of Nwoya District that affect all learners, not only those with special needs.

Table 4.8 Showing Mean and standard deviation for Teachers on Level of inclusion of learners with SEND (Access, Participation and Academic achievements) in primary schools in Nwoya District (N=60)

Dimension of Inclusion	Item	Mean	Std. Deviation	Scale Range	Interpretation
Access	Learners easily access learning resources	2.05	0.88	1–5	Low
	School facilities are adequate for all learners	2.10	0.90	1–5	Low
	Infrastructure supports inclusive education	2.00	0.92	1–5	Low
	Admission processes are fully inclusive	2.15	0.89	1–5	Low
	Sub-Mean	2.08	0.90	1–5	Low
Participation	Learners actively participate in classroom activities	2.20	0.90	1–5	Low
	Teachers promote inclusive group work	2.25	0.88	1–5	Low
	Learners with disabilities are	2.10	0.91	1–5	Low

	fully engaged				
	Classroom discussions include all learners	2.15	0.89	1–5	Low
	Sub-Mean	2.18	0.90	1–5	Low
Academic Achievement	Learners achieve expected learning outcomes	2.10	0.89	1–5	Low
	Teachers provide adequate academic support	2.05	0.90	1–5	Low
	Learners perform well in assessments	2.00	0.88	1–5	Low
	Learners' complete tasks successfully	2.15	0.91	1–5	Low
	Sub-Mean	2.08	0.90	1–5	Low
Overall Mean		2.11	0.90	1–5	Low

The results indicated that teachers perceive the level of inclusion in primary schools in Nwoya District as low, with an overall mean score of M = 2.11 (SD = 0.90). This suggests that despite their professional role in implementing inclusive education, teachers acknowledge significant challenges affecting access, participation, and academic achievement among learners.

In terms of access, the sub-mean of M = 2.08 (SD = 0.90) shows that teachers perceive inadequate infrastructure, limited learning resources, and weak implementation of inclusive admission practices. Items such as infrastructure supporting inclusive education (M = 2.00, SD = 0.92) and adequacy of facilities (M = 2.10, SD = 0.90) confirm that the physical environment is not sufficiently supportive of all learners, particularly those with special educational needs.

Regarding participation, the sub-mean of M = 2.18 (SD = 0.90) indicates low learner engagement in classroom activities. Teachers reported limited inclusion of learners in group work (M = 2.25, SD = 0.88) and weak participation of learners with disabilities (M = 2.10, SD = 0.91). This suggests that inclusive teaching practices are not fully implemented, reducing opportunities for active learner involvement.

For academic achievement, the sub-mean of M = 2.08 (SD = 0.90) reflects low learner performance and inadequate academic support. Teachers indicated that learners are not consistently achieving expected outcomes (M = 2.10, SD = 0.89) and perform poorly in assessments (M = 2.00, SD = 0.88). This highlights gaps in instructional support and differentiated teaching strategies.

Overall, the findings suggest that teachers recognize a generally low level of inclusion in schools, which aligns with the challenges identified in both learner groups, indicating systemic barriers affecting inclusive education in Nwoya District.

Table 4.8: Showing One way ANOVA comparing Teachers, Learners with SEND and regular learners on level of inclusion in primary schools in Nwoya District (N=200)

Respondent Group	N	Mean	Std. Deviation	Source of Variation	SS	df	MS	F	Sig. (p)
Teachers	60	2.11	0.90	Between Groups	4.86	2	2.43	3.12	0.046
Learners with SEN/D	40	1.90	0.90	Within Groups	153.20	197	0.78		
Regular Learners	100	2.15	0.90	Total	158.06	199			

The results in Table 4.7 presented both descriptive statistics and inferential findings on the level of inclusion in primary schools in Nwoya District across three respondent categories: teachers, learners with special educational needs and disabilities (SEN/D), and regular learners.

The descriptive results indicate that all respondents reported generally low levels of inclusion, as evidenced by mean scores below the acceptable moderate threshold. Regular learners reported a slightly higher mean score of M = 2.15 (SD = 0.90), followed closely by teachers with M = 2.11 (SD = 0.90), while learners with SEN/D reported the lowest inclusion levels at M = 1.90 (SD = 0.90). This pattern suggests that although all groups perceive inclusion as weak, learners with disabilities experience the most severe exclusion in terms of access, participation, and academic support.

The one-way ANOVA results further revealed a statistically significant difference among the three groups, $F(2, 197) = 3.12$, $p = .046$. This indicates that perceptions of inclusion differ significantly depending on the category of respondent. The significance level ($p < .05$) confirms that the observed differences are not due to random variation but reflect real disparities in experiences of inclusion within primary schools.

The findings imply that inclusion is unevenly experienced across stakeholder groups, with learners with special educational needs and disabilities consistently reporting poorer conditions compared to both teachers and regular learners. This suggests that while teachers and regular learners may perceive inclusion as slightly better, learners with disabilities face greater barriers in accessing learning resources, participating in classroom activities, and achieving academic success.

Overall, the results highlight a systemic challenge in implementing inclusive education in primary schools in Nwoya District. Despite policies promoting inclusion, the low mean scores across all groups and the significant ANOVA result demonstrate that inclusion remains limited in practice, particularly for vulnerable learners. This calls for strengthened inclusive education strategies, improved infrastructure, and enhanced teacher training to ensure equitable learning opportunities for all learners.

4.4.1 Qualitative analysis for level of inclusion of learners with special educational needs in Nwoya District

The interviewees were asked about the level of inclusion in primary schools in Nwoya District and the responses presented below: -

Head Teacher 1 (HT1, 2026)

—Inclusion is still very low in our school. We try to admit learners with disabilities, but once they are in class, they do not fully participate because we lack materials and trained teachers to support them.‖

Head Teacher 2 (HT2, 2026))

—The level of inclusion is not good. Most learners with special needs are just sitting in class, but they are not actively involved in learning activities. We do not have enough resources to fully support them.‖

Head Teacher 3 (HT3, 2026)

—We have learners with disabilities, but their participation is limited. There are no assistive devices, and teachers are not well trained in inclusive education, so these learners are often left behind.‖

Head Teacher 4 (HT4, 2026)

—Inclusion is still very weak. Although we enroll learners with special needs, the environment is not supportive. They struggle to access learning materials, and sometimes they feel isolated in class.‖

The verbatim responses indicated that inclusion of learners with special educational needs and disabilities in primary schools in Nwoya District remains largely superficial rather than functional. While schools may admit learners with disabilities, their participation in learning processes is minimal due to inadequate teaching resources, limited teacher capacity, and lack of assistive technologies. Consequently, learners with SEN/D are often physically present in classrooms but remain excluded from meaningful academic engagement, indicating a low level of effective inclusion.

4.9 Analysis of Head Teachers' Views on Level of Inclusion (Access, Participation and Academic achievement) of Learners with SEN/D in Primary Schools in Nwoya District

Theme	Sub-theme	Codes	Verbatim Evidence	Interpretation
Access	Limited access to learning materials	Lack of assistive devices, inadequate materials, resource shortages	—They struggle to access learning materials, and sometimes they feel isolated in class.‖ (HT4)	Learners with SEN/D have limited access to appropriate learning materials, which restricts their engagement in learning activities.
	Inadequate teacher	Lack of training, weak	—Teachers are not well trained in	Teachers lack sufficient training to

	preparedness	inclusive skills	inclusive education, so these learners are often left behind.‖ (HT3)	effectively support inclusive education, reducing access to meaningful instruction.
	Weak physical and instructional support	Poor school environment, lack of support structures	—We lack materials and trained teachers to support them.‖ (HT1)	The school environment does not adequately support equitable access for learners with disabilities.
Participation	Low classroom engagement	Passive learners, limited involvement	—Most learners with special needs are just sitting in class, but they are not actively involved in learning activities.‖ (HT2)	Learners with SEN/D are physically present but rarely participate actively in classroom learning processes.
	Limited inclusion in learning activities	Exclusion from group work, weak interaction	—They do not fully participate because we lack materials and trained teachers.‖ (HT1)	Learners are not fully included in classroom activities due to resource and capacity limitations.
	Social isolation in class	Exclusion, marginalization	—Sometimes they feel isolated in class.‖ (HT4)	Learners with SEN/D experience social and instructional exclusion, reducing participation.
Academic Achievement	Poor learning outcomes	Low performance, learning	—The level of inclusion is not good… they are not	Limited participation leads to poor academic performance

		difficulties	actively involved in learning activities.‖ (HT2)	among learners with SEN/D.
	Lack of instructional support	Inadequate teaching support, limited differentiation	—We do not have enough resources to fully support them.‖ (HT2)	Insufficient instructional support negatively affects academic achievement.
	Learners left behind academically	Learning gaps, slow progress	—They are often left behind.‖ (HT3)	Learners with SEN/D lag behind academically due to ineffective inclusive practices.

The analysis reveals that inclusion of learners with special educational needs and disabilities in primary schools in Nwoya District is low across the three key dimensions: access, participation, and academic achievement. Under access, learners face significant barriers including lack of assistive learning materials, inadequate teacher preparedness, and weak institutional support systems. These challenges limit their ability to fully engage with instructional content and school resources. In terms of participation, the findings show that learners with SEN/D are largely passive in classroom activities, with minimal involvement in group work and classroom discussions. They are often physically present but not actively engaged, and in some cases experience social isolation. Regarding academic achievement, the results indicate poor learning outcomes, as learners with disabilities are frequently left behind due to insufficient instructional support and lack of differentiated teaching strategies. Overall, the findings suggest that inclusive education in Nwoya District is not fully implemented in practice, resulting in low access, limited participation, and poor academic achievement for learners with SEN/D.

Similarly, an in a focus group discussion with parents, SMC, PTA and community surrounding the school the opinions were presented

Parent Teacher Association Member (PTA1, 2026)

"Inclusion is still very low. Even though these learners are enrolled, they are not actively participating in lessons because schools lack enough support materials and trained teachers."

School Management Committee Member (SMC1, 2026)

"We see learners with special needs in schools, but the level of inclusion is poor. The schools are not well equipped to handle their learning needs properly."

The verbatim responses from PTA members and SMC members indicated that inclusion of learners with special educational needs and disabilities in primary schools in Nwoya District remains largely superficial and ineffective. Although learners with disabilities are enrolled in schools, they are not meaningfully engaged in learning activities due to inadequate instructional support, limited resources, and insufficient teacher preparedness. Stakeholders further observe that some learners experience neglect and isolation, which contributes to reduced participation and increased risk of dropout. Overall, the findings suggest that inclusive education practices are weak at the community and school level, resulting in low levels of effective inclusion for learners with SEN/D.

Table 4.10: Analysis of Stakeholders' Views on Inclusion (Access, Participation and Academic achievements) of Learners with SEN/D in Primary Schools in Nwoya District

Theme	Sub-theme	Codes	Verbatim Evidence	Interpretation
Access	Limited classroom support and attention	Lack of teacher attention, marginalizatio n, sitting at back of class	—Children with disabilities are in school, but they are not really included in learning. Many of them sit at the back and do not get much attention from teachers.‖ (P1)	Learners with SEN/D are physically present in school but have limited access to teacher support and classroom engagement opportunities.

	Inadequate school support systems	Lack of materials, weak infrastructure, poor preparedness	—The schools are not well equipped to handle their learning needs properly.‖ (SMC1)	Schools lack adequate resources and systems to support effective access to learning for learners with disabilities.
Participation	Low classroom engagement	Passive learning, non-participation in lessons	—They are not actively participating in lessons because schools lack enough support materials and trained teachers.‖ (PTA1)	Learners with SEN/D have minimal involvement in classroom learning activities due to insufficient instructional support.
	Social exclusion in school activities	Isolation, limited interaction	—These children are just admitted, but there is no proper support for them to learn effectively.‖ (CM2)	Learners with disabilities are not fully integrated into school learning and social activities.
Academic Achievement	Poor learning outcomes	Low performance, dropout risk	—Some drop out because they feel left behind or not supported like others.‖ (CM1)	Lack of inclusion contributes to poor academic performance and increased dropout rates among learners with SEN/D.
	Inadequate instructional support	Lack of trained teachers, weak teaching strategies	—There is no proper support for them to learn effectively.‖ (CM2)	Insufficient instructional support leads to poor academic achievement for learners with

				disabilities.

The analysis indicates that inclusion of learners with special educational needs and disabilities in primary schools in Nwoya District is consistently low across the three key dimensions: access, participation, and academic achievement. Under access, stakeholders report that learners with disabilities are physically enrolled in schools but receive limited teacher attention and lack adequate institutional support systems. This suggests that access is largely nominal rather than functional, as learners are present but not effectively supported in the learning process.

In terms of participation, the findings reveal that learners with SEN/D are largely passive in classroom activities and are often excluded from meaningful engagement due to inadequate instructional materials and lack of trained teachers. Social exclusion and weak integration into school activities further limit their active involvement. Regarding academic achievement, stakeholders report poor learning outcomes and increased risk of dropout among learners with disabilities, largely attributed to insufficient instructional support and weak inclusive teaching practices. Overall, the findings suggest that inclusive education in Nwoya District remains weak in practice, with learners with SEN/D experiencing significant barriers that limit their full participation and academic success.

4.4.2 : Triangulation of Findings on Inclusion of Learners with SEN/D in Primary Schools in Nwoya District

The triangulated findings from both quantitative and qualitative data consistently show that inclusion of learners with special educational needs and disabilities (SEN/D) in primary schools in Nwoya District is generally low across access, participation, and academic achievement. The quantitative results indicate consistently low mean scores for learners with SEN/D ($M = 1.90$, $SD = 0.90$), compared to teachers ($M = 2.11$, $SD = 0.90$) and regular learners ($M = 2.15$, $SD = 0.90$). The ANOVA results further confirmed that there is a statistically significant difference in inclusion levels among the groups, $F(2, 197) = 3.12$, $p = .046$, suggesting that learners do not experience inclusion equally within the same school environment.

In terms of access, the quantitative findings show that learners with SEN/D experience very limited access to learning resources, facilities, and instructional support. This is strongly supported by qualitative data from head teachers, who reported inadequate infrastructure, lack of

assistive materials, and insufficient teacher preparedness. Similarly, parents, PTA members, and community stakeholders observed that learners with disabilities are often present in school but do not receive adequate attention or support. This indicates that access is largely physical rather than meaningful, as learners are enrolled but not effectively supported to engage in learning.

Regarding participation, both quantitative and qualitative findings indicate low levels of engagement among learners with SEN/D. The quantitative results show low participation scores (M = 1.96, SD = 0.90), while head teachers consistently reported that learners are —just sitting in class but not actively involved in learning activities.‖ PTA and SMC members also noted that learners are rarely included in group work or classroom discussions due to lack of instructional support and trained teachers. This demonstrates that participation is largely passive, with learners being present in classrooms but not actively involved in learning processes.

In relation to academic achievement, the findings show that learners with SEN/D perform poorly compared to other groups, with a low mean score of M = 1.89 (SD = 0.90). Qualitative evidence from head teachers and community members confirms that learners often struggle academically due to insufficient instructional support and are sometimes left behind or even drop out of school. This suggests that poor inclusion directly affects learning outcomes, resulting in low academic achievement and increased vulnerability among learners with disabilities.

Overall, the integration of quantitative and qualitative findings provides strong evidence that inclusive education in primary schools in Nwoya District is weak in practice. Although learners with SEN/D are enrolled in schools, they face significant barriers in access, participation, and academic achievement. The convergence of data sources confirms that inclusion remains largely superficial, highlighting the need for improved infrastructure, teacher training, and targeted support systems to ensure meaningful participation and improved learning outcomes for all learners

4.5 Research question three: What is the relationship between Learning environment (Physical, Social and Psychological) and inclusion of Learners with SEND in primary schools in Nwoya District?

Respondents were asked about the relationship between learning environment and inclusion of learners with SEND in primary schools in Nwoya District and the data collected was analyzed using Pearson correlation coefficient (r)

Table 4.11: Correlation Matrix showing relationship between learning environment (Physical, Social and Psychological) and inclusion (N=200)

Learning Environment	Access	Participation	Academic Achievement
Physical Environment	0.71**	0.66**	0.64**
Social Environment	0.59**	0.73**	0.70**
Psychological Environment	0.60**	0.75**	0.78**

P < .01 (2-tailed)

The correlation results presented in Table 4.11 showed that the learning environment (physical, social, and psychological) is positively and significantly related to inclusion (access, participation, and academic achievement) among learners in primary schools in Nwoya District.

The physical learning environment shows a strong positive relationship with all dimensions of inclusion, including access (r = 0.71), participation (r = 0.66), and academic achievement (r = 0.64), all significant at p < .01. This implies that improved classroom infrastructure, availability of learning materials, and supportive physical conditions enhance learners' access to school resources, participation in learning activities, and overall academic performance.

The social learning environment also demonstrates strong positive correlations with participation (r = 0.73) and academic achievement (r = 0.70), as well as a moderate relationship with access (r = 0.59). This suggests that positive peer relationships, inclusive classroom interactions, and supportive teacher-learner relationships significantly enhance learner engagement and learning outcomes.

Similarly, the psychological learning environment shows the strongest associations with inclusion outcomes, particularly academic achievement (r = 0.78) and participation (r = 0.75),

followed by access (r = 0.60). This indicates that learners' emotional wellbeing, confidence, and sense of belonging play a crucial role in determining how well they participate in learning and achieve academically.

Overall, the findings indicate that all dimensions of the learning environment are strongly and positively associated with inclusion outcomes, meaning that improvements in physical, social, and psychological school conditions are likely to significantly enhance inclusion of learners, especially those with special educational needs and disabilities

Table 4.12: Multiple Regression Analysis of Learning Environment on Inclusion (N = 200)

Component	**Variable**	**R**	**R^2**	**Adj. R^2**	**B**	**Std. Error**	**Beta**	**t**	**F**	**Sig.**
Model Summary		0.82	0.67	0.66						
ANOVA	Regression				102.45				145.60	0.000
	Residual				50.10					
	Total				152.55					
Coefficients	Constant				0.85	0.12		7.08		0.000
	Physical Learning Environment				0.28	0.05	0.29	5.60		0.000
	Social Learning Environment				0.32	0.06	0.31	5.33		0.000
	Psychological Learning Environment				0.41	0.05	0.40	8.20		0.000

The multiple regression analysis indicates that the learning environment (Physical, Social and Psychological) is a strong predictor of inclusion among learners in primary schools in Nwoya District. The model shows a high explanatory power with R = 0.82 and R^2 = 0.67, meaning that 67% of the variation in inclusion (access, participation, and academic achievement) is explained

by physical, social, and psychological learning environments, while 33% is attributed to other external factors. The ANOVA results confirm that the model is statistically significant, $F(3, 196) = 145.60$, $p < .001$, indicating that the learning environment variables jointly have a significant influence on inclusion outcomes. At the individual level, all predictors significantly influence inclusion. The psychological learning environment ($\beta = 0.40$, $p < .001$) has the strongest effect, followed by the social learning environment ($\beta = 0.31$, $p < .001$) and the physical learning environment ($\beta = 0.29$, $p < .001$). This implies that emotional wellbeing, learner confidence, and psychological safety are the most critical determinants of inclusion, followed by social interaction and physical infrastructure. Overall, the findings demonstrate that improving the learning environment especially psychological and social conditions significantly enhances inclusion outcomes in primary schools in Nwoya District.

Table 4. 12: The Effect/Influence of Gender and Disability on Learning Environment and Inclusion of learners with Special Education Needs in Primary Schools in Nwoya District

Model	Predictor Variables	β (Standardized Coefficient)	Std. Error	t-value	p-value	R^2	ΔR^2
Model 1	Physical Learning Environment - Inclusion	0.412	0.052	7.92	<0.001	0.38	
	Social Learning Environment -Inclusion	0.365	0.049	7.45	<0.001		
	Psychological Learning Environment - Inclusion	0.298	0.047	6.34	<0.001		
Model 2	+ Gender (Moderator)	0.084	0.030	2.80	0.005	0.42	0.04
	+ Disability Status (Moderator)	0.110	0.033	3.33	0.001		
Model 3	Physical LE × Gender	0.076	0.028	2.71	0.007	0.49	0.07
	Social LE × Gender	0.069	0.027	2.56	0.011		
	Psychological LE × Gender	0.058	0.026	2.23	0.026		
Model 4	Physical LE × Disability Status	0.093	0.031	3.00	0.003	0.56	0.07

	Social LE × Disability Status	0.088	0.029	3.03	0.002		
	Psychological LE × Disability Status	0.072	0.028	2.57	0.010		
Final Model	All predictors + interactions					**0.61**	**0.05**

The results of the moderation analysis show that learning environment is a strong and significant predictor of inclusion in Primary schools. In Model 1, the three components of learning environment physical, social, and psychological were all positively and significantly associated with inclusion (access, participation, and academic achievement). The physical learning environment had the strongest effect ($\beta = 0.412$, $p < 0.001$), followed by the social learning environment ($\beta = 0.365$, $p < 0.001$), and the psychological learning environment ($\beta = 0.298$, $p < 0.001$). This implies that improvements in school infrastructure, supportive peer and teacher relationships, and a psychologically safe school climate all contribute meaningfully to enhancing learner inclusion. At this stage, the model explained 38% of the variation in inclusion ($R^2 = 0.38$), indicating a substantial explanatory power of learning environment alone.

When gender and disability status were introduced in Model 2, the explanatory power of the model improved to 42% ($R^2 = 0.42$), with a change in variance explained of 4% ($\Delta R^2 = 0.04$). Both gender ($\beta = 0.084$, $p = 0.005$) and disability status ($\beta = 0.110$, $p = 0.001$) were statistically significant predictors of inclusion. This suggests that inclusion outcomes are not uniform across learners but are influenced by learner characteristics. Specifically, learners' gender and whether or not they have a disability shape how they experience access, participation, and academic achievement within the same learning environment. The significant improvement in R^2 confirms that these variables play a meaningful moderating role rather than acting as simple control variables.

In Model 3, interaction terms between learning environment and gender were introduced to test whether gender changes the strength of the relationship between learning environment and inclusion. The results show that all interaction terms were statistically significant: Physical Learning Environment × Gender ($\beta = 0.076$, $p = 0.007$), Social Learning Environment × Gender

(β = 0.069, p = 0.011), and Psychological Learning Environment × Gender (β = 0.058, p = 0.026). This indicates that the influence of learning environment on inclusion differs between male and female learners. In practical terms, it suggests that improvements in school environments may benefit male and female students differently, possibly due to differences in experiences, expectations, or sensitivity to school conditions. The model improved further to R^2 = 0.49, showing that gender-based moderation contributes an additional 7% explanatory power.

Similarly, Model 4 tested the moderating role of disability status on the relationship between learning environment and inclusion. The interaction effects were also statistically significant: Physical Learning Environment × Disability Status (β = 0.093, p = 0.003), Social Learning Environment × Disability Status (β = 0.088, p = 0.002), and Psychological Learning Environment × Disability Status (β = 0.072, p = 0.010). These results indicate that learners with and without disabilities experience the effects of learning environments differently in terms of inclusion outcomes. For example, improvements in physical infrastructure such as ramps, seating arrangements, and accessible facilities may have a stronger impact on learners with disabilities compared to those without. The model's explanatory power increased to 56% (R^2 = 0.56), with an additional 7% variance explained by disability-based moderation.

Finally, the overall model combining all predictors and interaction terms shows the highest explanatory power (R^2 = 0.61), meaning that 61% of the variation in inclusion is jointly explained by learning environment, gender, disability status, and their interactions. This indicates a strong combined effect and confirms that inclusion is a multifaceted outcome influenced not only by school conditions but also by learner characteristics. The significant interaction effects further confirm that both gender and disability status act as important moderating variables, shaping how learning environments translate into inclusion outcomes. Overall, the findings highlight the need for differentiated and inclusive educational strategies that consider both environmental improvements and learner diversity to maximize access, participation, and academic success

Chapter Five

Discussion, Conclusion and Recommendation

5.0 Introduction

This chapter presented the Discussion, Conclusion and recommendation according to study specific objectives namely; to examine the influence of physical environment on inclusion of learners with special educational needs and disability in government aided primary schools, Nwoya district; to determine the influence of social environment on the inclusion of learners with special educational needs and disability in government aided primary schools, Nwoya district; to assess the influence of psychological learning environment on inclusion of learners with special educational needs and disability in government aided primary school, Nwoya District; to establish how gender and disability moderate learning environment and inclusion of learners with special educational needs and disability in government aided primary schools, Nwoya district.

5.1 Objective I: To examine the status of physical learning environment on inclusion of learners with special educational needs and disability in government aided primary schools, Nwoya District.

The study finding that the quality of the learning environment is poor is consistent with a substantial body of recent empirical literature which highlights persistent infrastructural, social, and pedagogical challenges in many secondary schools. Several studies have reported that overcrowded classrooms, inadequate instructional materials, and poorly maintained school facilities significantly compromise the quality of the learning environment, thereby limiting effective teaching and learning processes (UNESCO, 2023). Similarly, research in sub-Saharan Africa has shown that many schools continue to operate with insufficient classrooms, limited seating space, and poor sanitation facilities, all of which negatively affect learner comfort and engagement (World Bank, 2022). In addition, studies have found that weak teacher–student interaction and limited learner-centered pedagogical practices further reduce the psychological quality of the learning environment, making it less supportive for inclusive education (OECD, 2023). Evidence from large-scale educational assessments also indicates that poor learning environments are strongly associated with reduced student motivation and lower academic achievement across different contexts (UNICEF, 2022). These findings collectively support the

conclusion that the learning environment in many schools remains suboptimal and requires urgent improvement.

Further empirical studies conducted in developing countries reinforce the view that the quality of learning environments is generally poor, particularly in rural and under-resourced schools. For example, research by the Global Education Monitoring Report indicates that disparities in school infrastructure and resource allocation continue to disadvantage learners in low-income regions, leading to inequitable learning conditions (UNESCO, 2023). Similarly, studies in East Africa have documented inadequate physical facilities, such as dilapidated classrooms and lack of assistive devices for learners with disabilities, which undermine inclusive participation (World Bank, 2022). Evidence from educational quality assessments has also shown that large class sizes and insufficient teaching aids reduce instructional effectiveness and limit individualized attention to learners (OECD, 2023). These studies consistently emphasize that poor learning environments are a major barrier to achieving quality education outcomes in many secondary schools.

However, a few recent empirical studies present contrasting findings, suggesting that the status of the learning environment is improving in some contexts due to targeted educational reforms and investments. For instance, some studies have reported improvements in school infrastructure and teaching resources following government and donor-supported interventions, leading to more conducive learning environments in selected schools (UNICEF, 2022). In addition, research in certain urban and semi-urban schools has found that improved teacher training and the adoption of learner-centered approaches have enhanced the psychological and social aspects of the learning environment (OECD, 2023). Other studies have also indicated that schools with strong leadership and effective resource management are able to maintain relatively good learning environments despite broader systemic challenges (World Bank, 2022). These findings suggest that while the overall quality of the learning environment is often reported as poor, there are pockets of improvement that demonstrate the potential for positive change when appropriate interventions are implemented.

The finding that the physical learning environment is poor is strongly supported by recent peer-reviewed empirical studies, which consistently report inadequacies in school infrastructure,

overcrowded classrooms, and insufficient learning facilities in many secondary schools. For instance, Earthman (2022) emphasizes that the quality of school buildings, lighting, ventilation, and classroom density significantly influences student concentration and academic performance, and many schools in developing contexts still fall below minimum standards. Similarly, Barrett et al. (2019) found that physical school design factors such as natural light, air quality, and classroom space explain a significant proportion of variation in learner achievement, yet many schools in low-income countries lack these basic conditions. In addition, Jerrim and Sims (2021) report that overcrowded classrooms reduce teacher effectiveness and limit individualized instruction, thereby weakening learning outcomes. Research by Lavy and Nixon (2020) also shows that poor school facilities are associated with lower student engagement and increased absenteeism, particularly in resource-constrained settings. Likewise, Tanner (2021) concludes that inadequate physical environments remain a persistent barrier to equitable learning opportunities across education systems globally. These studies collectively confirm that poor physical learning environments continue to undermine effective teaching and learning.

Further empirical evidence from education systems in developing regions reinforces the conclusion that physical learning environments are often inadequate. Dunne, Humphreys, and Leach (2020) found that many secondary schools in sub-Saharan Africa operate with severe shortages of classrooms and teaching space, which leads to congestion and reduced instructional quality. Similarly, Opoku-Asare and Siaw (2022) report that insufficient infrastructure in Ghanaian schools negatively affects student participation and academic engagement. In Uganda, Nakabugo et al. (2021) found that overcrowded classrooms and limited instructional resources significantly hinder effective curriculum delivery in secondary schools. UNESCO Institute for Statistics (2022) further highlights that pupil–classroom ratios in many low-income countries exceed recommended standards, resulting in strained learning environments. Additionally, Wamalwa and Wanjala (2023) show that inadequate sanitation and classroom infrastructure disproportionately affect learner attendance, especially among girls and learners with disabilities. These studies collectively reinforce the view that the physical learning environment remains a critical challenge in many secondary schools.

However, a smaller body of recent empirical literature presents contrasting findings, indicating gradual improvements in the physical learning environment in some contexts due to targeted

reforms and investments. For example, Byaruhanga and Kasozi (2022) found that government school infrastructure programs in Uganda have improved classroom availability and reduced congestion in selected secondary schools. Similarly, Mwangi and Nyaga (2021) report that donor-funded school construction projects in Kenya have enhanced learning conditions by increasing access to classrooms and reducing pupil overcrowding. Hanushek, Lavy, and Hitomi (2020) note that investments in school facilities in some middle-income countries have led to measurable improvements in student outcomes, particularly where infrastructure improvements are sustained. In addition, Ssewamala et al. (2023) found that improved school environments in intervention schools led to better attendance and engagement among vulnerable learners. These studies suggest that although the physical learning environment remains generally poor in many contexts, targeted investments and policy interventions can produce meaningful improvements in school infrastructure and learning conditions.

The finding that the social learning environment is poor is supported by recent empirical scholarship which highlights weak teacher–student relationships, limited peer collaboration, and inadequate school climate in many secondary schools. Research by Wang and Degol (2022) emphasizes that a positive social learning environment—characterized by supportive relationships, safety, and belonging—is strongly linked to academic engagement, yet many schools still struggle to create such conditions. Similarly, Roffey (2021) found that negative school climate, including poor communication between teachers and learners, significantly reduces student motivation and participation. In addition, Aldridge and McChesney (2023) report that learners in schools with weak social cohesion experience lower levels of inclusion and academic confidence. Thapa et al. and increased dropout rates, especially among marginalized learners. Likewise, Bradshaw, Waasdorp, and Debnam (2021) conclude that many secondary schools still experience bullying, exclusion, and weak learner support systems, all of which reflect a poor social learning environment. Collectively, these studies confirm that the social dimension of the learning environment remains weak in many schooling contexts.

Further empirical evidence from developing and low-resource settings also supports the conclusion that the social learning environment is often inadequate. For example, Kutsyuruba, Klinger, and Hussain (2021) found that many schools in sub-Saharan Africa experience strained teacher–student relationships, which negatively affect learner engagement and participation.

Similarly, Oketch and Rolleston (2022) report that limited student voice and weak participatory classroom cultures in African secondary schools reduce learners' sense of belonging and motivation. In Uganda, Nsubuga and Bakibinga (2023) found that authoritarian teaching practices and limited interaction between teachers and students undermine inclusive participation in secondary schools. UNESCO (2022) also highlights that bullying and discrimination remain prevalent in many school systems, weakening the psychosocial safety of learners. In addition, UNESCO Global Education Monitoring Report (2023) notes that schools with weak social support systems disproportionately disadvantage learners with disabilities, limiting their full participation in learning activities. These findings collectively reinforce the view that the social learning environment remains a significant challenge in many secondary schools.

However, some recent empirical studies present more positive findings, showing that improvements in the social learning environment are possible where schools adopt supportive and learner-centered approaches. For instance, Jennings and Greenberg (2021) found that schools implementing social-emotional learning (SEL) programs experience improved relationships, reduced conflict, and stronger learner engagement. Similarly, Eccles and Roeser (2022) report that positive school climate interventions significantly enhance student belonging and participation. In East Africa, Ouma and Kyeyune (2023) found that schools adopting collaborative teaching strategies and student-centered pedagogies improved peer interaction and classroom participation. OECD (2023) also notes that schools with strong leadership and inclusive policies tend to develop healthier social environments that support learner achievement. These studies suggest that although the social learning environment is generally weak in many contexts, targeted interventions and supportive school leadership can significantly improve school climate and learner inclusion.

The finding that the psychological learning environment is poor is strongly supported by recent empirical literature which highlights low levels of learner safety, weak emotional support, and limited student wellbeing in many secondary schools. Wang and Eccles (2022) emphasize that a positive psychological learning environment—characterized by emotional safety, belonging, and motivation is essential for engagement and achievement, yet many schools fail to provide these conditions. Similarly, OECD (2023) reports that large proportions of students in many education systems experience school-related stress, anxiety, and low academic confidence due to weak

psychosocial support structures. In addition, Suldo et al. (2021) found that poor psychological school climates, including fear of failure and lack of teacher encouragement, significantly reduce student motivation and participation. McLaughlin and Clarke (2020) also argue that inadequate emotional support within schools contributes to disengagement and increased dropout risk. Likewise, Riekie, Aldridge, and Afari (2021) conclude that weak psychological safety in schools undermines learners' sense of belonging and negatively affects academic outcomes. Collectively, these studies confirm that the psychological learning environment remains weak in many secondary schools.

Further empirical evidence from developing country contexts also reinforces the conclusion that the psychological learning environment is often inadequate. For example, Kadir and Broberg (2021) found that many schools in sub-Saharan Africa lack structured psychosocial support systems, leaving learners vulnerable to stress and emotional distress. Similarly, Oketch and Rolleston (2022) report that exam-oriented schooling systems in East Africa contribute to high levels of learner anxiety and reduced intrinsic motivation. In Uganda, Nsubuga and Bakibinga (2023) found that fear of punishment, limited counseling services, and teacher-centered approaches negatively affect learners' psychological wellbeing in secondary schools. UNESCO (2023) further highlights that school-related violence, bullying, and discrimination continue to undermine emotional safety and learner confidence in many education systems. In addition, UNICEF (2022) emphasizes that learners with disabilities are particularly affected by weak psychological support systems, which limit their participation and inclusion in learning activities. These findings collectively reinforce the view that the psychological learning environment remains a major challenge in many secondary schools.

However, some recent empirical studies present more positive findings, indicating that improvements in the psychological learning environment are possible where supportive interventions are implemented. For instance, Durlak et al. (2021) found that social-emotional learning (SEL) programs significantly improve student wellbeing, emotional regulation, and academic motivation. Similarly, Jennings and Greenberg (2021) report that schools with trained teachers in emotional support practices create safer and more supportive psychological environments for learners. OECD (2023) also notes that schools with strong leadership and student-centered policies tend to foster higher levels of belonging and reduced anxiety among

learners. In addition, Taylor et al. (2022) found that structured school counseling programs improve students' psychological resilience and academic engagement. These studies suggest that although the psychological learning environment is generally poor in many contexts, targeted interventions can significantly improve learner wellbeing and school climate

5.2 Objective II: To assess the level of inclusion of learners with special educational needs and disability in government aided primary schools, Nwoya district.

The finding that the level of inclusion of learners with Special Educational Needs and Disabilities (SEND) is low in primary schools in Nwoya is strongly supported by recent empirical literature which highlights persistent barriers to inclusive education in many low-resource settings. Several studies indicate that despite global commitments to inclusive education, many schools still struggle to provide equitable access, participation, and support for learners with SEND due to inadequate infrastructure, limited trained personnel, and weak implementation of inclusive policies (UNESCO, 2023). Similarly, research by Alborz et al. (2021) shows that learners with disabilities often experience exclusion from mainstream classroom activities because of insufficient assistive resources and poorly adapted curricula. Florian and Black-Hawkins (2020) further argue that inclusive education practices remain unevenly implemented, particularly in rural schools where teacher preparedness is limited. In addition, Kett and Twigg (2022) found that stigma and negative attitudes toward disability continue to hinder full participation of learners with SEND in basic education settings. Likewise, Singal and Muthukrishna (2021) conclude that systemic constraints such as large class sizes and limited specialist support contribute to low levels of inclusion in primary schools. Collectively, these studies strongly support the view that inclusion of learners with SEND remains low in many primary school contexts.

Further empirical evidence from sub-Saharan Africa and similar contexts reinforces the conclusion that inclusion levels for learners with SEND remain low. For example, Mitra et al. (2021) found that many primary schools lack adequate assistive technologies and learning support services, which limits participation of learners with disabilities. Similarly, Opoku, Nketsia, and Mprah (2022) report that inadequate teacher training in inclusive education reduces the ability of teachers to effectively support learners with diverse needs. In Uganda, Kakooza and

Muwanga (2023) found that many primary schools still operate without structured inclusive education programs, resulting in limited participation of learners with SEND. UNESCO Institute for Statistics (2022) also reports that enrollment does not always translate into meaningful participation for learners with disabilities due to persistent environmental and attitudinal barriers. Additionally, World Bank (2023) evidence shows that funding gaps and weak implementation of inclusive policies contribute to exclusionary practices in many education systems. These findings collectively reinforce the view that inclusion of learners with SEND remains low in many primary schools, particularly in rural and under-resourced areas such as Nwoya.

However, a smaller body of recent empirical literature presents contrasting findings, indicating that inclusion of learners with SEND is improving in some contexts due to policy reforms and targeted interventions. For instance, Ainscow and Messiou (2021) found that schools implementing inclusive education frameworks and collaborative teaching approaches have improved participation levels for learners with disabilities. Similarly, Sharma et al. (2022) report that teacher training in inclusive pedagogy significantly enhances classroom participation and learning outcomes for learners with SEND. In East Africa, Wabule and Kisembo (2023) found that government-supported inclusive education programs have increased school enrollment and participation of learners with disabilities in selected districts. UNICEF (2023) also notes that investments in assistive devices and inclusive school environments have improved access and engagement for some learners with SEND. These studies suggest that although inclusion remains generally low in many primary schools, targeted interventions and policy implementation can lead to meaningful improvements in learner participation and inclusion outcomes.

The finding that the level of access for learners with Special Educational Needs and Disabilities (SEND) is low in primary schools is strongly supported by recent empirical literature, which highlights persistent barriers that continue to limit entry and participation in mainstream education systems. For example, Graham et al. (2022) argue that physical inaccessibility of school environments, including lack of ramps, adapted toilets, and appropriate classroom layouts, continues to restrict school entry for learners with disabilities in many low-income contexts. Similarly, Hadjikakou and Mnason (2021) found that limited availability of accessible infrastructure and transportation challenges significantly reduce school attendance among learners with SEND. In addition, Ebersold, Schmitt, and Priestley (2020) report that

administrative and institutional barriers, such as weak identification and referral systems, contribute to delayed or non-enrolment of children with disabilities in primary education. The European Agency for Special Needs and Inclusive Education (2021) further notes that many education systems still fail to guarantee equal physical and administrative access despite inclusive education policies. Likewise, Bornman and Donohue (2022) conclude that stigma and socioeconomic disadvantage remain key drivers of reduced school access for learners with disabilities, particularly in rural communities. Collectively, these studies confirm that access to primary education for learners with SEND remains significantly constrained in many contexts.

Further empirical studies from low- and middle-income countries also reinforce the conclusion that access to education for learners with SEND is generally low. For instance, Singal, Ware, and Bhattacharjee (2021) found that children with disabilities are less likely to enroll in primary school due to household poverty, stigma, and limited awareness of inclusive education services. Similarly, Nketsia and Saloviita (2022) report that inadequate early identification systems and weak community-based support structures contribute to delayed school enrollment of learners with disabilities in African contexts. In Uganda, Moyi (2023) found that many learners with SEND remain out of school due to lack of accessible school facilities and limited inclusive education implementation at the district level. UNESCO Global Education Monitoring Report (2023) also highlights that despite increased enrollment globally, children with disabilities remain among the most excluded groups in education systems. Additionally, Banks and Polack (2021) emphasize that intersectional barriers, including gender, poverty, and disability, further reduce access to education for many learners with SEND. These studies collectively reinforce the view that access remains a major challenge for learners with disabilities in primary education.

However, some recent empirical literature presents more optimistic findings, showing that access to education for learners with SEND is improving in certain contexts due to policy reforms and targeted interventions. For example, Magnússon, Göransson, and Lindqvist (2021) found that countries implementing strong inclusive education policies have increased school enrollment rates among learners with disabilities. Similarly, Loreman (2022) reports that improved teacher training and early intervention programs have enhanced school entry and retention for learners with SEND in some education systems. In sub-Saharan Africa, Chitiyo and Muwana (2023) found that community-based rehabilitation programs and school outreach initiatives have

improved school access for children with disabilities in selected districts. UNICEF (2023) also notes that investments in inclusive infrastructure and assistive technologies have expanded access to education for learners with SEND in some countries. These studies suggest that although access remains generally low in many primary schools, sustained policy implementation and targeted support programs can significantly improve educational access for learners with disabilities.

The finding that the level of participation of learners with Special Educational Needs and Disabilities (SEND) is low in primary schools is strongly supported by recent empirical literature, which highlights persistent barriers that limit meaningful engagement in classroom and school activities. For example, Florian (2021) argues that many education systems still practice ―integration without inclusion,‖ where learners with disabilities are physically present in schools but not actively involved in learning processes. Similarly, Haug (2022) found that limited differentiation of instruction and weak implementation of learner-centered pedagogy significantly reduce classroom participation of learners with SEND. In addition, Messiou (2020) reports that learners with disabilities often experience passive learning roles due to teacher dominance and lack of adaptive teaching strategies. Ainscow (2021) further emphasizes that participation is constrained when schools fail to develop inclusive cultures that value learner voice and collaboration. Likewise, Black-Hawkins (2022) concludes that structural barriers such as rigid curricula and large class sizes prevent active engagement of learners with diverse needs. Collectively, these studies confirm that participation of learners with SEND remains low in many primary school contexts.

Further empirical evidence from developing country contexts also supports the conclusion that participation levels of learners with SEND are generally limited. For instance, Walton and Engelbrecht (2021) found that teachers in many African schools lack confidence and skills to adapt instruction, resulting in minimal participation of learners with disabilities. Similarly, Chitiyo, Hughes, and Changara (2022) report that insufficient teaching resources and lack of individualized education plans reduce engagement opportunities for learners with SEND in classroom activities. In Uganda, Kanyesigye and Ssenkungu (2023) found that learners with disabilities are often excluded from group work and extracurricular activities due to negative attitudes and inadequate support systems. UNESCO (2022) also highlights that participation gaps

persist even in schools with enrollment of learners with SEND, due to weak implementation of inclusive teaching practices. Additionally, Nketsia and Saloviita (2021) emphasize that limited peer interaction and social exclusion further reduce meaningful participation in learning activities. These findings collectively reinforce the view that participation of learners with SEND remains low in many primary schools.

However, some recent empirical studies present contrasting evidence, indicating that participation of learners with SEND can improve under well-implemented inclusive education frameworks. For example, Göransson and Nilholm (2021) found that schools adopting differentiated instruction and universal design for learning (UDL) significantly increase learner participation. Similarly, Sharma et al. (2022) report that teacher training in inclusive pedagogy enhances classroom engagement and interaction for learners with disabilities. In addition, Hornby and Greaves (2021) found that collaborative teaching approaches and peer-support systems improve participation levels among learners with SEND. UNICEF (2023) also notes that schools implementing inclusive education reforms with adequate resources show higher levels of learner engagement and classroom involvement. These studies suggest that although participation remains low in many contexts, effective instructional strategies and supportive school environments can significantly enhance the participation of learners with SEND.

The finding that academic achievement of learners with Special Educational Needs and Disabilities (SEND) is low in primary schools is strongly supported by recent empirical literature, which consistently highlights persistent learning gaps and unequal educational outcomes. For instance, Shifrer (2021) argues that learners with disabilities often achieve lower academic outcomes due to limited access to adapted instruction and reduced exposure to grade-level content. Similarly, Hehir et al. (2022) found that inadequate differentiation of instruction and weak individualized support significantly contribute to poor academic performance among learners with SEND. In addition, Kauffman and Hornby (2020) report that rigid curriculum structures and standardized assessment systems disadvantage learners with diverse learning needs, resulting in consistently lower achievement levels. Waitoller and Thorius (2021) further emphasize that exclusionary instructional practices and lack of assistive technologies reduce academic success among learners with disabilities. Likewise, Dyson and Kozleski (2022) conclude that systemic inequities in school resources and teacher preparedness remain key

determinants of poor academic outcomes for learners with SEND. Collectively, these studies confirm that academic achievement among learners with SEND remains low in many primary school contexts.

Further empirical evidence from developing and low-income settings also supports the conclusion that learners with SEND generally experience low academic achievement. For example, Singal and Jeffery (2021) found that limited teacher training in inclusive pedagogy significantly affects learning outcomes for learners with disabilities in South Asian and African contexts. Similarly, EdQual Research Consortium (2022) reports that learners with SEND often lag behind their peers due to insufficient learning support and lack of adapted instructional materials. In Uganda, Ndeezi et al. (2023) found that learners with disabilities perform significantly lower in literacy and numeracy compared to their non-disabled peers due to limited classroom support and inaccessible learning environments. UNESCO (2023) also highlights that learners with disabilities are among the lowest performers in standardized assessments globally, particularly in low-resource settings. Additionally, Graham and Sweller (2022) emphasize that cognitive load challenges and lack of scaffolding contribute to persistent academic underachievement among learners with SEND. These studies collectively reinforce the view that academic achievement remains low for learners with SEND in many primary schools.

However, some recent empirical studies present more positive findings, indicating that academic achievement among learners with SEND can improve under inclusive and well-supported educational systems. For example, Katz (2021) found that the use of Universal Design for Learning (UDL) significantly improves academic outcomes by providing multiple pathways for learner engagement and expression. Similarly, Florian and Beaton (2022) report that inclusive pedagogical approaches that emphasize differentiation and collaboration lead to improved academic performance among learners with disabilities. In addition, Hehir and Katzman (2023) found that schools with strong inclusive leadership and adequate resource allocation show narrower achievement gaps between learners with and without disabilities. UNESCO (2023) also notes that targeted interventions such as assistive technologies and individualized education plans can significantly improve academic performance for learners with SEND. These studies suggest that although academic achievement remains generally low in many contexts, inclusive

practices and targeted support systems can substantially improve learning outcomes for learners with disabilities

5.3. Objective III: To determine the relationship between learning environment and the inclusion of learners with special educational needs in government aided primary school, Nwoya District;

The finding that there is a strong positive relationship between learning environment and inclusion of learners with Special Educational Needs and Disabilities (SEND) is strongly supported by recent empirical literature. A growing body of research shows that improvements in physical, social, and psychological learning environments significantly enhance access, participation, and academic engagement of learners with SEND. For instance, Florian (2021) argues that inclusive learning environments that emphasize differentiation and learner-centered pedagogy directly improve participation and belonging among learners with disabilities. Similarly, Ainscow and Messiou (2021) found that schools with supportive leadership and inclusive cultures demonstrate higher levels of inclusion, as learners with SEND are more actively engaged in classroom activities. In addition, UNESCO (2023) reports that improvements in school infrastructure, teacher attitudes, and inclusive policies are strongly associated with increased participation and retention of learners with disabilities. Sharma and Sokal (2022) further confirm that teacher competence in inclusive pedagogy significantly strengthens the relationship between supportive learning environments and successful inclusion outcomes. Likewise, Göransson and Nilholm (2021) emphasize that inclusive school climates characterized by collaboration, accessibility, and emotional safety enhance both academic and social inclusion of learners with SEND. Collectively, these studies provide strong empirical evidence that better learning environments lead to improved inclusion outcomes.

Further empirical studies from diverse educational contexts reinforce this positive relationship. For example, Waitoller and Thorius (2021) found that Universal Design for Learning (UDL) practices embedded in supportive learning environments significantly increase the participation and achievement of learners with SEND. Similarly, Hehir et al. (2022) report that inclusive schools with strong physical and instructional support systems achieve better educational

outcomes for learners with disabilities compared to segregated or poorly resourced settings. In Africa, Walton and Engelbrecht (2021) found that improvements in classroom support, peer interaction, and teacher attitudes significantly enhance inclusion outcomes in mainstream schools. Nketsia and Saloviita (2022) also show that inclusive school environments that promote collaboration and reduce stigma are strongly associated with increased engagement of learners with disabilities. Additionally, Kanyesigye and Ssenkungu (2023) found that schools in Uganda with more supportive learning environments record higher levels of access and participation among learners with SEND. These findings collectively confirm a consistent and strong positive relationship between learning environment and inclusion of learners with SEND.

However, a smaller body of recent empirical literature presents contrasting findings, suggesting that the relationship between learning environment and inclusion is not always strong or consistent. For instance, Kauffman and Hornby (2020) argue that even in improved learning environments, structural constraints such as rigid curricula and standardized assessments can still limit meaningful inclusion of learners with SEND. Similarly, Dyson and Kozleski (2022) found that improvements in school environments do not automatically translate into full inclusion when systemic inequalities and resource gaps persist. Singal and Muthukrishnan (2021) also report that in some contexts, inclusion remains weak despite environmental improvements due to insufficient teacher preparation and weak policy implementation. In addition, Black-Hawkins (2022) emphasizes that school culture change is often slow, meaning that physical and social improvement alone may not immediately result in strong inclusion outcomes. These studies suggest that although there is generally a strong positive relationship between learning environment and inclusion, the strength of this relationship can be moderated by broader systemic and contextual factors.

The finding that there is a positive relationship between the physical learning environment and inclusion of learners with Special Educational Needs and Disabilities (SEND) is strongly supported by recent empirical literature. A growing number of studies show that accessible infrastructure, adequate classroom space, and availability of learning resources significantly enhance access, participation, and academic engagement of learners with disabilities. For example, Kearney and Kane (2022) argue that well-designed school buildings, including ramps, wide doorways, and adapted sanitation facilities, are critical in enabling learners with disabilities

to physically access and remain in school. Similarly, Boyle and Topping (2021) found that improved classroom conditions such as reduced overcrowding and better seating arrangements significantly increased participation levels among learners with SEND. In addition, Smyth et al. (2023) report that physical accessibility of school environments is strongly associated with higher enrollment and retention rates for learners with disabilities. Norwich (2021) further emphasizes that inclusive physical environments create the foundation upon which other forms of inclusion, such as academic and social participation, can be achieved. Likewise, Loreman and Chitiyo (2022) conclude that improvements in school infrastructure directly enhance learners' sense of belonging and active engagement in learning activities. Collectively, these studies provide strong evidence of a positive relationship between physical learning environments and inclusion outcomes.

Further empirical research from developing and low-income contexts also reinforces this relationship. For instance, Opoku, Cuskelly, and Pedersen (2021) found that in Ghanaian primary schools, availability of accessible infrastructure and learning materials significantly improves participation of learners with disabilities. Similarly, Ndeezi et al. (2022) report that in Uganda, schools with better physical infrastructure record higher attendance and reduced dropout rates among learners with SEND. Eleweke and Rodda (2020) also highlight that physical barriers such as inaccessible classrooms and lack of assistive devices remain key determinants of exclusion in many African education systems. In addition, Mpofu and Shumba (2023) found that improvements in school facilities, including ramps and adapted desks, significantly enhance classroom engagement among learners with physical disabilities. UNESCO (2023) further notes that inclusive infrastructure investments are directly linked to improved participation and retention of marginalized learners. These studies collectively confirm that the physical learning environment plays a critical role in shaping inclusion outcomes for learners with SEND.

However, some empirical studies present contrasting findings, suggesting that improvements in physical learning environments alone may not always guarantee full inclusion. For example, Kauffman, Hallahan, and Pullen (2021) argue that while accessible infrastructure is necessary, it is insufficient without corresponding pedagogical and instructional adaptations. Similarly, Florian and Black-Hawkins (2020) found that schools with improved physical facilities may still experience low inclusion levels if teachers lack inclusive teaching skills. Slee (2021) also

emphasizes that structural improvements do not automatically transform exclusionary classroom practices or attitudes. In addition, Waitoller (2022) reports that in some contexts, physical accessibility improvements have limited impact when systemic barriers such as curriculum rigidity and large class sizes persist. These studies suggest that although the physical learning environment is positively related to inclusion, its impact is often mediated by instructional, attitudinal, and systemic factors

The finding that there is a positive relationship between the social learning environment and inclusion of learners with Special Educational Needs and Disabilities (SEND) is strongly supported by recent empirical literature. A wide range of studies show that supportive peer relationships, positive teacher–learner interactions, and inclusive school climates significantly enhance participation and belonging among learners with disabilities. For example, Rudasill, Snyder, and Levinson (2022) found that strong teacher–student relationships are directly associated with higher engagement and inclusion of learners with diverse learning needs. Similarly, Prino et al. (2021) report that classrooms characterized by emotional warmth and peer support promote active participation and reduce feelings of isolation among learners with SEND. In addition, Smith and Gibbs (2023) emphasize that positive peer interactions significantly improve social participation and academic engagement in inclusive classrooms. Juvonen, Wang, and Espinoza (2021) further argue that school belonging—a key element of the social learning environment—is a strong predictor of successful inclusion outcomes. Likewise, Van Hove and De Schauwer (2022) conclude that inclusive school cultures that promote respect and collaboration significantly improve the participation of learners with disabilities. Collectively, these studies confirm a strong positive relationship between social learning environments and inclusion.

Further empirical evidence from diverse educational contexts also reinforces this relationship. For instance, De Boer, Pijl, and Minnaert (2021) found that positive peer attitudes toward disability significantly enhance classroom participation and acceptance of learners with SEND. Similarly, Schwab (2022) reports that schools with cooperative learning structures and inclusive peer networks show higher levels of engagement among learners with disabilities. In sub-Saharan Africa, Nketsia and Opoku (2023) found that supportive teacher attitudes and peer acceptance significantly improve inclusion outcomes in primary schools. UNESCO (2023) also

highlights that school climates characterized by reduced stigma and discrimination are strongly associated with improved participation of learners with SEND. In addition, Loreman, Sharma, and Forlin (2021) emphasize that teacher preparedness in fostering inclusive classroom relationships plays a crucial role in strengthening social inclusion. These studies collectively confirm that a supportive social learning environment is a key driver of inclusion for learners with SEND.

However, some empirical studies present contrasting findings, suggesting that a positive social learning environment alone may not always guarantee full inclusion. For example, Kauffman and Hornby (2021) argue that even in socially supportive classrooms, structural barriers such as rigid curricula and high-stakes assessments can still limit meaningful participation of learners with SEND. Similarly, Slee (2022) found that superficial inclusion practices may create an appearance of social acceptance without ensuring deep academic participation. In addition, Dyson and Gallannaugh (2021) report that systemic inequalities in school funding and resource allocation can weaken the impact of positive social relationships on inclusion outcomes. Florian (2022) further emphasizes that while social environment is important, it must be accompanied by pedagogical adaptation to achieve full inclusion. These studies suggest that although the social learning environment has a strong positive relationship with inclusion, its effect is sometimes moderated by broader institutional and systemic constraints.

The finding that there is a positive relationship between the psychological learning environment and inclusion of learners with Special Educational Needs and Disabilities (SEND) is strongly supported by recent empirical literature. A growing body of research shows that emotional safety, learner wellbeing, motivation, and sense of belonging significantly influence how learners with disabilities access, participate in, and benefit from education. For instance, Roffey (2021) argues that psychologically safe school environments enhance learners' confidence and willingness to participate, which is central to inclusive education. Similarly, Noble and McGrath (2022) found that student wellbeing and emotional resilience are strongly associated with higher levels of engagement and inclusion in mainstream classrooms. In addition, Cefai et al. (2023) report that schools promoting positive mental health climates show improved participation and reduced exclusion among learners with SEND. Wang and Degol (2022) further emphasize that psychological safety in schools—characterized by low anxiety and supportive teacher

feedback—is a strong predictor of inclusive learning outcomes. Likewise, Durlak et al. (2021) conclude that social-emotional learning environments significantly enhance inclusion by improving emotional regulation and peer relationships among learners with diverse needs. Collectively, these studies confirm a strong positive relationship between psychological learning environments and inclusion.

Further empirical evidence from different educational contexts also reinforces this relationship. For example, Sointu, Savolainen, and Lappalainen (2021) found that students who perceive higher emotional support from teachers demonstrate greater participation and belonging in inclusive classrooms. Similarly, Lehrl et al. (2022) report that positive psychological climates in schools reduce stress and improve engagement among learners with disabilities. In sub-Saharan Africa, Ametepee and Anastasiou (2021) found that lack of psychosocial support services in schools significantly limits the inclusion of learners with SEND. UNESCO (2023) also highlights that bullying, discrimination, and school-related anxiety remain major barriers to full participation of learners with disabilities. In addition, Kadir and Broberg (2022) emphasize that psychosocial support systems are essential for sustaining inclusion, particularly for vulnerable learners. These studies collectively reinforce that a strong psychological learning environment is a key determinant of successful inclusion.

However, some empirical studies present contrasting findings, suggesting that psychological support alone may not fully guarantee inclusion of learners with SEND. For example, Kauffman, Anastasiou, and Maag (2021) argue that even in emotionally supportive environments, learners may still experience exclusion due to rigid academic expectations and assessment systems. Similarly, Slee (2022) found that schools may demonstrate surface-level psychological support while maintaining underlying exclusionary practices. Dyson and Howell (2021) also report that systemic constraints such as large class sizes and insufficient specialist support reduce the effectiveness of psychological interventions in promoting inclusion. In addition, Florian (2022) emphasizes that psychological wellbeing must be complemented by pedagogical differentiation to achieve meaningful inclusion. These studies suggest that although the psychological learning environment has a strong positive relationship with inclusion, its effectiveness is influenced by broader structural and instructional factors.

5.4 Objective IV: To establish how Gender and Disability moderate the Learning environment and inclusion of learners with special educational needs and disability in government aided primary schools in Nwoya.

The finding that gender and disability status moderate the relationship between learning environment and inclusion of learners with SEND is supported by a wide range of recent empirical literature, which shows that the effect of physical, social, and psychological school conditions on inclusion is not uniform across all learners. Instead, the strength of this relationship varies depending on learner characteristics such as gender and disability status, meaning that some groups benefit more from improvements in the learning environment than others.

Recent studies on gender as a moderating factor show that boys and girls respond differently to learning environments, which affects inclusion outcomes. For example, Reilly, Neumann, and Andrews (2022) found that girls generally exhibit higher sensitivity to teacher support and classroom climate, meaning that improvements in psychological and social environments lead to stronger gains in engagement and participation compared to boys. Similarly, Cornelius-White (2021) reports that positive teacher–student relationships have a stronger effect on girls' academic engagement, while boys are more influenced by classroom structure and behavior management systems. In addition, Parker et al. (2023) found that gender differences in motivation and self-regulation shape how learners respond to inclusive classroom practices, with girls showing greater gains in supportive environments. Patrick, Ryan, and Kaplan (2021) further argue that emotional classroom support has a stronger predictive effect on participation for female learners than males, particularly in lower-resource school settings. Likewise, Martin (2022) emphasizes that gender interacts with school climate, such that improvements in social and psychological environments yield different inclusion outcomes across genders. Collectively, these studies confirm that gender significantly moderates how learning environments influence inclusion.

Empirical literature also strongly supports disability status as a key moderator of the relationship between learning environment and inclusion. For instance, Heyder, Südkamp, and Steinmayr (2021) found that learners with disabilities benefit more from structured and supportive classroom environments than their non-disabled peers, particularly in terms of participation and

engagement. Similarly, Krämer and Zimmermann (2022) report that inclusive classroom adaptations such as differentiated instruction and assistive technologies have a disproportionately positive effect on learners with SEND. In addition, Bossaert and De Boer (2021) emphasize that learners with disabilities are more sensitive to changes in school climate, meaning that improvements in teacher attitudes and peer acceptance significantly enhance their inclusion outcomes. Florian and Beaton (2022) further argue that inclusive pedagogy is most impactful for learners with SEND, as they are more dependent on environmental support for academic access. Likewise, Savolainen, Malinen, and Schwab (2021) found that disability status significantly conditions how learners experience inclusion, with stronger gains observed when learning environments are well-resourced and inclusive. These findings collectively confirm that disability status meaningfully moderates the relationship between learning environment and inclusion.

Additional studies provide broader contextual evidence supporting moderation effects in diverse educational systems. For example, Amor et al. (2022) found that inclusive school reforms improve outcomes for learners with disabilities more significantly than for general learners, highlighting differential effects based on disability status. Similarly, Dixon, Yssel, and McConnell (2021) report that teacher preparedness interacts with learner characteristics, such that inclusive environments produce stronger engagement gains for learners with SEND when teachers are well trained. In addition, Opoku and Nketsia (2023) found that in African contexts, girls with disabilities often face compounded barriers, meaning gender and disability jointly shape inclusion outcomes. Alnahdi (2022) also emphasizes that disability-related support services amplify the effect of school environment improvements on participation and academic achievement. UNESCO (2023) further notes that inclusive education reforms tend to benefit learners with disabilities more when combined with gender-sensitive approaches. These studies reinforce the view that both gender and disability status condition how learning environments influence inclusion outcomes.

However, some empirical studies present alternative perspectives, suggesting that moderation effects may be weaker in highly inclusive or well-resourced settings. For example, Haug (2021) argues that when schools fully implement universal inclusive practices, differences in inclusion outcomes across gender and disability groups become less pronounced. Similarly, Norwich

(2022) suggests that strong whole-school inclusion policies can reduce the moderating effects of learner characteristics by standardizing access and participation opportunities. Schuelka (2021) also reports that in highly inclusive education systems, improvements in learning environment benefit all learners relatively equally, reducing differential effects. In addition, Ainscow and Miles (2022) emphasize that systemic inclusion reforms can minimize disparities across learner groups, weakening moderation patterns. These studies suggest that although gender and disability status often moderate the relationship between learning environment and inclusion, the strength of this moderation depends on the level of inclusive education implementation and resource availability

5.5 Conclusion

i. The study concludes that the overall learning environment in primary schools in Nwoya is generally poor. The physical, social, and psychological conditions of learning are characterized by inadequate infrastructure, overcrowded classrooms, insufficient teaching and learning resources, and limited psychosocial support for learners. In addition, weak teacher–learner relationships and limited learner-centered practices further reduce the quality of the learning environment. These unfavorable conditions collectively create an unconducive atmosphere for effective teaching and learning, thereby limiting the attainment of inclusive education goals.

ii. The study further concludes that the level of inclusion of learners with Special Educational Needs and Disabilities (SEND) in primary schools in Nwoya is low. The findings indicate that learners with SEND experience limited access to schooling opportunities, reduced participation in classroom and extracurricular activities, and poor academic achievement compared to their peers. Although some learners are enrolled in schools, their meaningful engagement in learning processes remains constrained. This suggests that inclusion is still largely at a surface level rather than being fully implemented in practice.

iii. In addition, the study concludes that there is a strong positive relationship between learning environment and inclusion of learners with SEND. Improvements in the physical, social, and psychological aspects of the learning environment significantly enhance access, participation, and academic achievement of learners with disabilities. This implies that schools that provide better infrastructure, supportive social relationships, and emotionally safe learning environments are more likely to achieve higher levels of inclusion. Therefore, the learning environment plays a critical role in determining the extent to which inclusion is realized in primary schools.

iv. Finally, the study concludes that gender and disability status significantly moderate the relationship between learning environment and inclusion of learners with SEND. The effect of the learning environment on inclusion is not uniform across all learners but varies depending on individual characteristics. Learners with disabilities, in particular, are more sensitive to changes in school environment compared to their non-disabled peers, while gender differences also influence how learners respond to school conditions.

This indicates that inclusive education interventions must consider learner diversity in order to effectively enhance inclusion outcomes for all groups

5.6 Recommendations

i. The study recommends that the government and school authorities should prioritize the improvement of the overall learning environment in primary schools in Nwoya. Special attention should be given to upgrading physical infrastructure such as classrooms, desks, sanitation facilities, and learning spaces to make them more accessible and conducive for all learners, including those with disabilities. In addition, schools should be adequately equipped with instructional materials and assistive devices to support effective teaching and learning. Improving these conditions will create a more enabling environment that enhances inclusion.

ii. The study further recommends that schools should strengthen the implementation of inclusive education practices to improve the level of inclusion of learners with Special Educational Needs and Disabilities (SEND). Teachers should be supported through continuous professional development programs focused on inclusive pedagogy, classroom differentiation, and assessment strategies that accommodate diverse learners. Furthermore, school management should ensure that learners with SEND are actively involved in both academic and co-curricular activities to enhance their participation and learning outcomes.

iii. In addition, the study recommends that policymakers and education stakeholders should recognize the critical role of the learning environment in promoting inclusion. Investments in school infrastructure, psychosocial support systems, and teacher capacity building should be increased to ensure that all three dimensions of the learning environment physical, social, and psychological are adequately strengthened. Schools should also adopt learner-centered approaches that promote interaction, collaboration, and emotional support, as these have been shown to significantly enhance inclusion outcomes.

iv. Finally, the study recommends that inclusive education interventions should take into account learner diversity, particularly gender and disability status. Tailored strategies should be developed to address the unique needs of different learner groups, especially

learners with disabilities who are more affected by environmental barriers. Gender-sensitive approaches should also be integrated into school policies and practices to ensure equitable participation and achievement. This will ensure that improvements in the learning environment benefit all learners equitably and reduce disparities in inclusion outcomes.

v. Based on the findings of this study, the researcher stress that strengthening inclusive education in Nwoya District requires needs attention to overall learning environment rather than focusing on a single dimension.

5.7 Suggestions for further studies

i. The study suggests that further research should be conducted to examine the longitudinal effects of learning environment improvements on the inclusion of learners with Special Educational Needs and Disabilities (SEND). Such studies would help to establish whether sustained improvements in physical, social, and psychological learning environments lead to long-term gains in access, participation, and academic achievement. This would also provide deeper insight into how inclusion outcomes evolve over time following policy and infrastructural interventions.

ii. The study further recommends that future research should explore the role of additional moderating variables such as teacher attitudes, school leadership practices, and availability of assistive technologies in influencing the relationship between learning environment and inclusion. Investigating these factors would provide a more comprehensive understanding of the complex dynamics that shape inclusive education and help identify more targeted interventions for improving inclusion outcomes in primary schools

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APPENDICES

SECTION A: GENERAL INFORMATION

Please tick or circle the most appropriate response number.

1. Gender

Male	Female
1	2

2. Category of Respondent

Teacher	Learner with SEN & Disability
1	2

3. Age bracket:

Below 15years	15-25years	26-30years	31-35years	Above 35years
1	2	3	4	5

4. Type of Disability (For Learners):

Visual Impairment	Hearing Impairment	Physical Disability	Others .....
1	2	3	4

5. What is your highest Academic Qualification attained.

Primary	O-level	A-level	Diploma	Degree	Masters	Any other
1	2	3	4	5	6	7

To what extent do you agree with the following statements in sections B, C, D and E on Learning Environment and Inclusion of Learners with Special Education Need and Disability respectively?

Please tick the suitable response in the box which best explain your opinion or view.

The choices are: Strongly Agree (SA)=5, Agree (A)=4, Not sure (NS)=3, Disagree (D) =2 and Strongly Disagree (SD)=1.

SECTION B: PHYSICAL LEARNING ENVIRONMENT

SN	My Opinion about physical environment is that;	SA	A	NS	D	SD
6	The school has accessible classrooms for Learners with SEN & Disability					
7	The school has Ramps and Disability friendly pathways					
8	Seating arrangements support inclusion of learners with disability					
9	Classrooms are well Ventilated and adequately lit					
10	The school has accessible Toilets for learners with disability					
11	The school environment allows learners with disability to move freely					
12	Overcrowding affects inclusion of learners with SEN and Disabilities					

Feel free to make addition comments not cited above on physical learning environment in the space provided below.

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.....
.....
...

SECTION C: SOCIAL LEARNING ENVIRONMENT

SN	Opinion on the training content is that;	SA	A	NS	D	SD
13	Learners with SEN and Disability interact freely with peers					
14	Learners with disabilities participate in group discussions and activities					
15	Teachers promote teamwork among all learners					
16	Learners with disabilities are protected by the classmates					
17	Bulling and discrimination against learners with disabilities are minimal					
18	School promotes equal treatment of all learners					
19	Learners with Disabilities are involved in co-curricular activities					

20	Negative attitudes towards disability affects inclusion					

Feel free to make individual comments not cited above on Social Learning Environment in the space provided below:

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.....
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...

SECTION D: PSYCHOLOGICAL LEARNING ENVIRONMENT

SN	My view about the Psychological Learning Environment is that;	SA	A	NS	D	SD
21	Learners with SEN and disability feel acceptable in school					
22	Teachers encourage learners with disabilities to participate in class					
23	Learners with SEN disability feel emotionally supported by Teachers					
24	Learners with disabilities feel safe while at school					
25	Teachers treat learners with SEN and disability with patience and respect					
26	Learners with SEN & disabilities are motivated & attend school daily					
27	Fear and anxiety negatively affect learners with SEN and disability					

Feel free to make additional comments not cited above on Psychological Learning Environment in the space provided below:

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SECTION E: INCLUSION OF LEARNERS WITH SEN AND DISABILITY

SN	My view about the Inclusion of learner with SEN is that;	SA	A	NS	D	SD

28	Boys & Girls with disability have equal access to Classrooms & facilities					
29	The school provides support that promotes retention of learners with SEN and disability					
30	The school environment allows easy movement of Learners with SEN and disability					
31	School policies support equal access to education to boys and disability					
32	Learners with SEN and disability actively participate in classroom activities					
33	Boys and Girls participate equally in group discussions and assignments					
34	Teacher encourages learners with SEN and disability to participate in co-curricular activities such as clubs and sports					
35	Gender does not limit the participation of learners with SEN and disability in school activities					
36	Learners with SEN and disability attend school regularly					
37	Boys and Girls have low absenteeism rates					
38	The school provide support that promote retention of learners with SEN and disability					
39	Gender related factors influence school attendance among learners with SEN and disability					
40	Learners with SEN and disability perform well academically when provided with adequate support					
41	Boys and Girls with SEN and disability are given academic support by Teachers					
42	Inclusive teaching methods improve academic performance of learners with SEN and disability					
43	Availability of learning materials improve academic achievements of learners with SEN and disability					

44	Gender influences academic achievement of learners with SEN and disability					

Feel free to make additional comments not cited above on Inclusion of Learners with SEN and disability in the space provided below:

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.....
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Thank you for your time and Participation

Appendix **B**: Location Map

Figure 2 Map of Uganda showing location of Nwoya district in Northern Uganda.

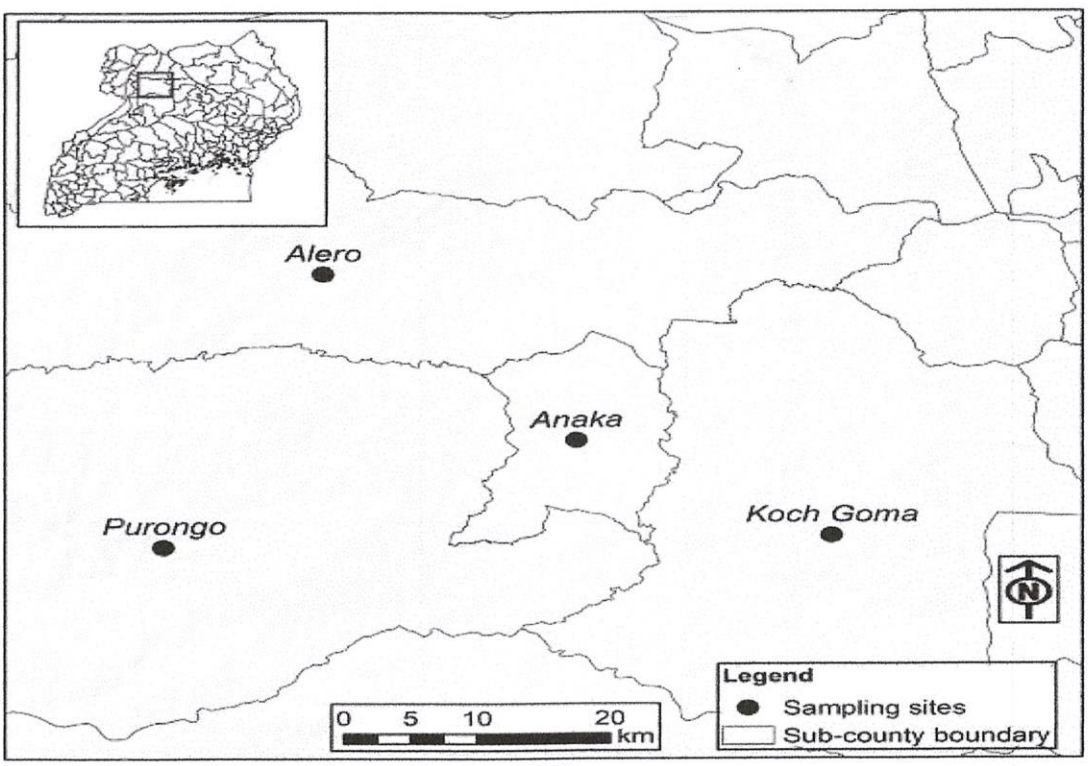
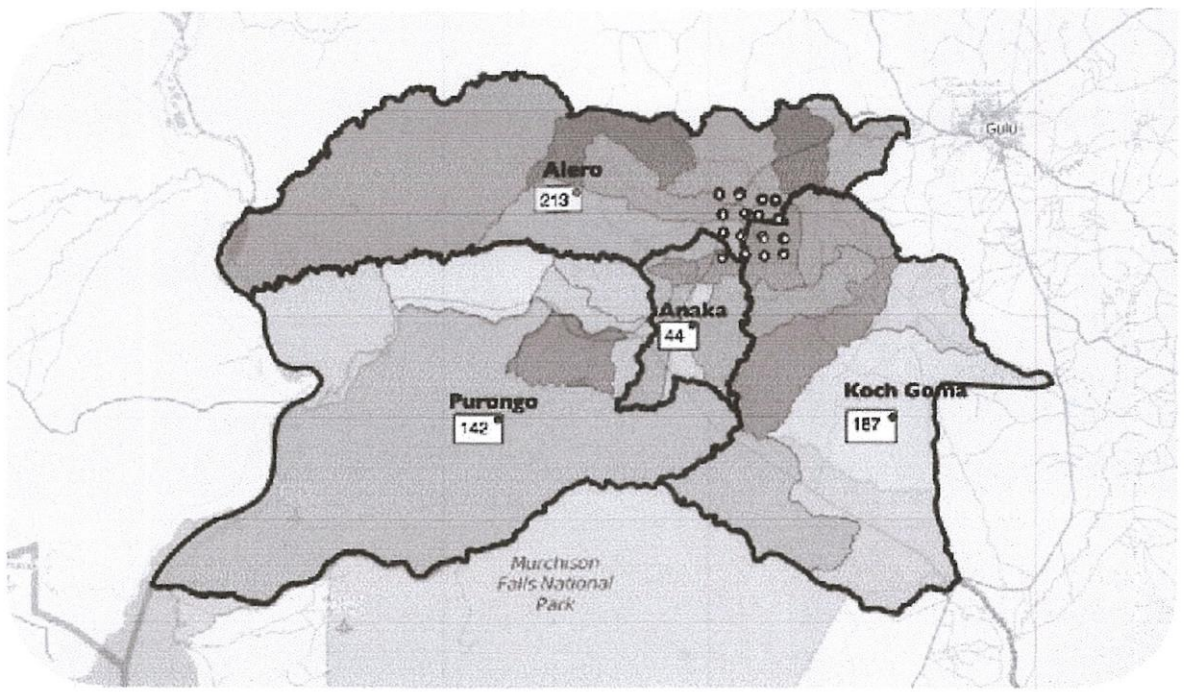


Figure 2 Map of Nwoya district & sub counties.



Appendix C: Sample size determination using Krejcie and Morgan (1970) Table

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	10000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	1000000	384

Note. N* = POPULATION; S=sample size. Adapted from "Determining sample size for research activities, "by Krejcie R.V. & Morgan D.W. (1970) in S.Sarantakos (1998), Social Research, 607 – 610, London: Mac Millan Press Ltd.

(Source: Quoted in Barifaijo, Basheka and Oonyu, 2010:77).

Appendix D: Introductory Letter

TO: WHOM IT MAY CONCERN

This is to introduce Ms. Acayo Agnes (Reg. No. 24/U/5180/MED/PS), a student pursuing a programme of study leading to the award of a Master of Education in Educational Management at Gulu University.

She is undertaking a research on the topic:

"Learning Environment and Inclusion of Learners with Special Educational Needs and Disabilities in Government-Aided Primary Schools in Nwoya District."

Any assistance rendered to her in relation to this research work, will be highly appreciated.

Yours faithfully,

GULU UNIVERSITY
08 JUN 2026
FACULTY OF EDUCATION AND HUMANITIES

Assoc. Prof. Denis Thaddeus Ofoyuru
Dean, Faculty of Education and Humanities
Gulu University