

Impact of Inclusive Education on the Academic Performance of Students with Disabilities in Learning

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Abstract:

Objectives: The study aims to investigate the various connections between inclusive education and the academic achievement of students with learning disabilities in Abia State, Nigeria.

Methods: This study used qualitative and quantitative research methods to examine the impact of inclusion on students with learning disabilities in Abia State, Nigeria. This research analyzed and compared perceptions of students, teachers, and school administrators regarding the implementation of inclusive education.

Results: The findings indicated that the impact of participation in inclusive classrooms was generally positive concerning academic performance; however, the results varied across students. Generally, teachers and students had mostly positive attitudes towards inclusion and fairly good compliance with techniques such as differentiated instruction and co-teaching. However, difficulties experienced included low incorporation of assistive technology and physical facility barriers.

Conclusions: the study provides a detailed understanding of the factors that may facilitate or hinder the success of inclusive education and underscores the importance of a multifaceted, contextual approach to enhance academic outcomes for students with learning disabilities in inclusive Nigerian classrooms.

Keywords: *Inclusive Education; Academic Performance; Learning Disabilities; Mainstream Classrooms.*

1 Introduction

The topic of inclusive education, which has gained more attention worldwide, emphasizes the increasing recognition of providing equal learning opportunities for all children, regardless of their disabilities (UNESCO, 2017 & United Nations, 2015). This shift towards inclusive educational practices in mainstream classrooms has sparked significant debate within the educational field, involving both supporters and critics, with scholars discussing the effects and implications of this change (Haug, 2017; Singal, 2008 & Slee, 2019). At the core of this debate is a fundamental question: Does inclusive education truly promote academic achievement and social integration for students with disabilities, or does it pose unintended challenges that may impede their learning and overall educational experience (Amor et al., 2018; Graham & Slee, 2008 & Runswick-Cole, 2011).

The scholars who support the idea of inclusion state that it not only allows for the promotion of human rights of children with disabilities as protected in the Constitution but also helps in the development of a tolerant society (Schuelka, 2018; Slee, 2018). Through the realization of the inclusion of students with learning disabilities in the general classrooms, inclusive education seeks to overcome prejudice, discrimination, and exclusion in all forms and promotes acceptance of differences. In addition, supporters argue that integration increases the learning outcomes and enrollment of students with disabilities into regular classrooms, as well as assisting with social studies and fostering contact with peers (van Bergen, Graham & Sweller, 2020).

Students with learning disabilities in inclusive settings have been another focus of research regarding learning outcomes, with more extensive studies exploring the relationship between inclusive education, teaching methods, and academic performance (Amor et al., 2018; Cologon, 2020). Meta-analyses and systematic reviews conducted in the recent past have shown both positive effects of inclusion on academic performance, with most studies noting that the integration of children with LD can enable them to have associations with their peers, observe general education classrooms, and interact with typical peers, all of which can lead to improvements in academic success (Dessementet & Bless, 2011; Szumski, Smogorzewska & Karwowski, 2017). However, other research has established non-

significant effects or even adverse effects when comparing the achievement of students with learning disabilities in integrated classrooms to that of students in separate environments (Demeris, Childs & Jordan, 2007). These contrary results suggest that multiple factors can mediate the outcomes of inclusion for students with learning disabilities in school contexts.

Several variables have been suggested as possible mediators or moderators of the link between inclusive education on one hand and the academic performance of learners with learning disabilities on the other. Classroom practices, including differentiated instruction, co-teaching, and the use of assistive technology, have been authenticated to play an imperative role in meeting the learning needs of all students (Browder et al., 2017 & King-Sears et al., 2015). Also, teacher factors such as their attitudes, self-efficacy, and preparedness towards Inclusive Education have been evidenced to have a great impact on strengthening Inclusive Education (Hehir & Katzman, 2012 & Malinen et al., 2013). The following socio-emotional factors have also been regarded as significant sources of academic performance of children with learning disabilities in inclusion classrooms: peer acceptance, self-esteem, and social inclusion (Avramidis & Norwich, 2019; Schwab, 2018). Inclusive education can provide students with a sense of inclusion and support, which can lead to an increase in motivation, participation, and eventual success (Koster et al., 2009).

While there has been a significant increase in global research on inclusive education, there is a limited number of large-scale and context-sensitive studies that analyze the intricate relationships between various factors affecting learners with learning disabilities in inclusive environments within the African context (Ainscow, 2020; Waitoller & Artiles, 2013). Additionally, although integrated schools are currently practiced in most developed countries, the learning context in developing countries, especially in sub-Saharan Africa, and its implications require further understanding of the perspectives of learners, parents, and teachers (Cologon, 2020; Graham & Slee, 2008). In Nigeria specifically, inclusive education has been recognized as an area for educational improvement (Ajuwon, 2008; Obiakor & Ofor, 2011). However, there is limited research

available from the country and its various states assessing the effectiveness of inclusive practices on the learning outcomes of learners with learning disabilities. This research gap is further complicated by the socio-economic, cultural, and educational environments of students with disabilities within the country. Therefore, the purpose of this study is to conduct a detailed analysis of the multifaceted relationships between inclusive education and academic performance in Abia State, Nigeria. By utilizing both quantitative measures of academic achievement and qualitative information and analysis of the research questions, this study aims to uncover the complex interconnections between the components of inclusive practices, instructional methods, socio-emotional aspects, and academic performance of students with learning disabilities in Abia State. This research will involve gathering the perspectives and opinions of various stakeholders, contributing to the existing literature on inclusive education, and aiding in the development of policies and practices to enhance education for students with special needs in Nigerian schools.

1.1 The Problem Statement

Inclusive education has garnered significant attention as a means of providing high-quality education to all learners, including those with learning disabilities globally. However, its execution continues to present a complex and multifaceted challenge, particularly in developing countries (Sijuola & Davidova, 2022; Mutanga, 2017). The integration of students with diverse needs into mainstream education settings is believed to offer numerous benefits, such as fostering a sense of belonging, challenging prejudices, and fostering a culture that embraces diversity (Lindsay, 2007 & Schuelka, 2018).

Numerous studies have been conducted to examine the relationship between the inclusion of students with learning disabilities and their academic performance. The results of these studies have shown some inconsistencies and, in some cases, contradictions (Amor et al., 2018 & Cologon, 2020). The lack of consensus in this area highlights the multitude of factors that can influence the successful implementation of inclusive practices for this specific student population. Factors such as teacher practices, teacher beliefs and knowledge, individual self-regulation, as well as access to resources and the quality of accommodations, have

been identified as potential mediators or moderators of inclusive education and academic outcomes (Avramidis & Norwich, 2019; Browder et al., 2017; Yada & Savolainen, 2017).

The provision of inclusive education for students with disabilities in developing countries, particularly in sub-Saharan Africa, faces significant challenges stemming from socio-economic factors, cultural beliefs, and limited resources and educational facilities (Chireshe, 2013; Mutanga, 2017). These obstacles can significantly impede the effective implementation of inclusive practices for students with learning disabilities in educational settings. Furthermore, existing literature often marginalizes the perspectives of students, parents, teachers, and other stakeholders in the education system, thereby constraining our understanding of how exclusionary contexts impact the adaptability of inclusive education (Cologon, 2020; Graham & Slee, 2008).

In Nigeria, particularly in Abia state, the concept of inclusive education has been identified as an area requiring significant policy intervention and restructuring (Obiakor & Offor, 2011). However, there is a noticeable lack of research focusing on the impact of inclusive practices on students with learning disabilities within the Nigeria context. This research gap is exacerbated by the diverse socio-economic, cultural, and educational backgrounds of students with disabilities in the region (Angwaomaodoko, 2023). Consequently, there is a notable deficiency in the literature that examines the contextual factors influencing the academic performance of students with learning disabilities in inclusive classrooms in Nigeria, as well as the efficacy of inclusive education policies, programs, implementation strategies, and assessments. Without a comprehensive understanding of the challenges and opportunities faced by students, parents, teachers, and administrators, educational stakeholders and policymakers may struggle to implement effective approaches and interventions for students with learning disabilities. Furthermore, the lack of empirical research on the academic achievements and performance of students with learning disabilities in inclusive classrooms presents a barrier to comprehending the local implications of inclusive education and formulating recommendations for enhancement or targeted interventions. This scarcity of data impedes the development of inclusive education

models that are tailored to the unique cultural, socio-economic, and educational landscape of Nigeria, potentially resulting in the adoption of models that do not fully align with the Nigerian experience. Given the existing research gap, there is an urgent need for a comprehensive study that explores the intricate relationships between inclusive education and academic performance, as well as the specific experiences of learners with learning disabilities, teachers, and school administrators in Abia State, Nigeria.

1.2 Purpose of the Study

The study aims to investigate the various connections between inclusive education and the academic achievement of students with learning disabilities in Abia State, Nigeria. The specific objectives include:

- Investigate the influence of inclusive environments on the academic progress of students with learning disabilities in regular classrooms.
- Investigate the perspectives of students, teachers, and administrators regarding the implementation of inclusive education and examine the impact of this integration on the academic achievement of students with learning disabilities.
- Examine the degree to which the application of instructional strategies, teacher attitudes and self-efficacy, and socio-emotional factors act as moderators between inclusive education and the academic achievement of students with learning disabilities.

1.3 Research Questions

- What is the impact of an inclusive setting on the learning outcomes of students with learning disabilities in mainstream classrooms?
- What are the perceptions of students, teachers, and administrators regarding the implementation of inclusive education, and how does this integration impact the academic achievement of students with learning disabilities?
- To what extent do instructional strategies, teacher attitudes and self-efficacy, and socio-emotional factors moderate the relationship between inclusive education and academic performance among students with learning disabilities?

2 Literature Review

2.1 Inclusive Education

Several scholars have extensively examined the concept of inclusive education and have presented various perspectives on its definition (Adetoro, 2014 & Sharma, 2017). Adetoro's study demonstrated the feasibility of educating all students within the same educational institution while ensuring that students with disabilities are not subjected to discrimination or denied access to instructional materials. The main objective is to support children within the same age group in their learning process, provide necessary assistance, and foster engagement with all school activities (Kirschner, 2015). Ugwu and Onukwufor (2018) suggested that inclusive education is an instructional approach that addresses exclusion in the educational system, allowing children with disabilities to receive education alongside their peers in the community without facing discrimination based on physical or learning disabilities. Inclusive education aims to change societal perceptions of individuals with disabilities by encouraging learners to actively participate in academic processes despite any obstacles (Dupoux, Wolman, & Estrada, 2005).

According to Sijuola and Davidova (2022), inclusive education is perceived as a practical approach aimed at providing education to all individuals globally, regardless of their disabilities, to promote social justice. Du Plessis (2013, p.78) defines inclusive education as a learning approach that supports the holistic development of students, irrespective of their sexual orientation, learning style, gender, race, social class, or disability. The author emphasizes that inclusive education contributes to making educational systems more affordable and accessible. Similarly, Sharma (2017) highlights the significance of internal organizational changes, particularly in school settings, focusing on practices, regulations, and cultural attitudes to ensure the integration of all students in the same classroom without segregation. The primary objective is to ensure that individuals with disabilities receive education of equal quality to that of their peers.

In addition to exploring the theoretical benefits of inclusive education, some governments have moved beyond academic discussions and incorporated inclusive education into their official policies and protocols (United Nations, 2015). For

example, the Nigerian government has implemented proactive measures to safeguard the fundamental rights of People Living With Disabilities (PLWD) through provisions in the 1999 Nigerian Constitution.

2.2 Academic Performance

Academic performance is commonly defined as the level of proficiency or achievement that a student attains in academic subjects or courses (Chaudhry, Shafiq, & Berhanu; Steinmayr, Meißner, Weidinger, & Wirthwein, 2014). Evaluation of achievement is typically conducted through assessments such as tests, quizzes, assignments, projects, and class participation. Achievement encompasses a multifaceted and inclusive concept that encompasses academic success, learning processes, student motivation, study skills, attitudes, as well as the resources and circumstances that influence learning outcomes and accomplishments (Dawson et al., 2012; Mushtaq & Khan, 2012).

Another prevalent factor often linked to academic performance is cognitive ability, encompassing learning capacity, intelligence, and prior learning encounters (Deary, Chalder & Sharpe, 2007). Intelligence is characterized as the capacity to learn, retain information, and tackle problems. Students with higher intelligence tend to grasp concepts more readily, retain information better, and excel in problem-solving (Rohde & Thompson, 2007).

Numerous scholars have proposed that academic achievement is influenced by intrinsic and extrinsic factors commonly referred to as motivation (Ryan & Deci, 2000). Intrinsic motivation involves students being driven to learn due to their personal interest and satisfaction in the learning process, while extrinsic motivation entails students being incentivized by external rewards or punishments (Vallerand et al., 1992). Pintrich and Schunk (2002) emphasize that motivation leads to increased persistence, effort, and engagement in educational settings. Additionally, academic performance is influenced by skills such as time management, note-taking, and the use of effective learning strategies, as highlighted by Credé & Kuncel (2008). Students who cultivate good study habits tend to excel in adhering to study schedules and developing efficient task-handling methods, thereby enhancing their memory retention capabilities (Hartwig & Dunlosky, 2012).

The impact of the learning climate on teachers'

attitudes towards students and academic achievement is significant. The classroom environment, which is closely linked to teacher-student relationships and available resources, plays a crucial role in influencing students' academic performance (Eccles & Roeser, 2011). Effective class management contributes to enhancing students' motivation, engagement, and academic outcomes.

2.3 Students with Learning Disabilities

A learning disability (LD) is a condition that affects students who experience challenges in one or more areas of learning, such as reading, writing, mathematics, and other academic subjects, despite having average or above-average intelligence (Cortiella & Horowitz, 2014). These difficulties are not caused by other factors, such as sensory impairments, emotional disorders, or environmental disadvantages (Cortiella & Horowitz, 2014).

Learning disabilities are attributed to the neurological wiring of the brain (Hallahan, 2005). These differences can affect the capacity to learn, retain, and recall information, consequently influencing the development and application of academic skills (Cortiella & Horowitz, 2014). It is important to recognize that learning disabilities encompass a diverse range of specific learning challenges. Common types of learning disorders include dyslexia, affecting reading; dyscalculia, impacting mathematics; and dysgraphia, concerning writing (Hallahan, 2005). As a result, many students with learning disabilities may not perform up to their potential, leading to feelings of frustration, low self-esteem, and behavioral issues (Hallahan et al., 2005). Nevertheless, with appropriate interventions and accommodations, these students can excel academically and fulfill their capabilities (Cortiella & Horowitz, 2014).

Teaching strategies for individuals with learning disabilities involve the implementation of specific methodologies, classroom modifications, and the integration of technology for educational purposes (Lerner & Johns, 2015). Pedagogical approaches may encompass techniques such as oral reading, phonics, classroom instruction, and structured activities aimed at facilitating the learning process for the individual (Hallahan et al., 2005). Accommodations may include providing additional time for assessments, transforming information into various multimedia formats, or incorporating assistive devices and tools (Cortiella

& Horowitz, 2014). As highlighted by Firat and Bildiren (2020), it is essential to recognize that students with learning disabilities exhibit diverse strengths, weaknesses, and learning profiles. Consequently, interventions and accommodations need to be tailored individually based on the specific needs of each student, ideally overseen by a qualified professional or determined through assessment by experts in the field (Hallahan et al., 2005).

2.4 Inclusive Education for Students with Learning Disabilities

Inclusive education for students with learning disabilities entails the integration of these students into general classrooms alongside their non-disabled peers (Friend & Bursuck, 2012). This educational approach is founded on the principle that all students, irrespective of their learning disabilities or challenges, should have equal access to education and a suitable curriculum (Vaughn & Bos, 2002). Inclusive education opposes the practice of segregating students with disabilities into separate classes or schools, instead advocating for their participation in regular classes (Friend & Bursuck, 2012). This educational strategy for students with learning disabilities recognizes that, despite their disabilities, these students possess unique qualities and should receive education tailored to meet their specific needs within the general education setting (Vaughn & Bos, 2002).

In the realm of learning disabilities, the concept of inclusion within the general education classroom involves the implementation of diverse strategies and interventions aimed at improving the academic performance of the child. These strategies encompass:

- Differentiated instruction involves providing teaching, instruction, and testing accommodations for students, as well as utilizing instructional strategies and educational media tailored to individuals with learning disabilities (Subhan, 2006).
- Co-teaching involves collaboration between a general education teacher and a special education teacher to provide modifications and support in the general education classroom for a student with a disability (Murawski, 2006).
- Assistive technology involves utilizing information and communication technology devices and equipment to enhance the

accessibility of learning resources and facilitate the academic achievement of students with learning disabilities (Bryant & Seok, 2016).

- Universal Design for Learning (UDL) refers to the inclusive development of curriculum and delivery of lessons, ensuring that learning and teaching approaches are designed with consideration for students with disabilities (Al-Azawei, Serenelli & Lundqvist, 2016).
- Peer support involves fostering a positive peer culture in a classroom by promoting socially acceptable behavior among students, both those with and without disabilities (Carter & Kennedy, 2006).

A comprehensive examination of the existing literature indicates that the inclusion of students with learning disabilities in mainstream classrooms has been linked to favorable outcomes, such as improved academic performance, positive social interactions, and enhanced self-perceptions among students with LD (Vaughn & Bos, 2002). For instance, there are advantages in educating all students inclusively to appreciate and embrace diversity, thereby fostering a more tolerant society (Friend & Bursuck, 2012). Nevertheless, it is important to acknowledge that inclusive education entails significant resource allocation and necessitates ongoing staff training (Janney & Snell, 2006). Educators must possess the requisite knowledge, skills, and strategies to effectively design and implement differentiated instruction to support struggling learners in the classroom (Vaughn & Bos, 2002).

2.5 Academic Performance for Students with Learning Disabilities

Learning disabilities can impede the development of academic skills, primarily due to deficiencies in cognitive processing imagery that affect the acquisition, comprehension, and application of academic content information (Swanson, Jerman & Zhang, 2009). For example, individuals with dyslexia may encounter challenges in word decoding, which can restrict their reading and learning abilities (Peterson & Pennington, 2015). Additionally, students with learning disabilities may struggle with executive functioning skills, such as planning, organizational abilities, time management, and behavior regulation (Peterson & Pennington, 2015). These difficulties can impact the initiation, completion, and overall efficiency of

tasks, consequently influencing their academic performance (Langberg et al., 2011). It is also noteworthy that motivation and self-efficacy play a significant role in the academic achievement of students with learning disabilities, as highlighted by Zeleke (2004). Poor academic performance can lead to demotivation, low self-esteem, and a diminished interest in learning, potentially resulting in a cycle of underachievement and exacerbating academic challenges further (Klassen, Lindsey & Rajani, 2007).

Educational factors such as the quality of instruction, classroom environment, instructional management, and support services have been identified as influential elements that can either enhance or hinder the academic progress of students with learning disabilities (Jimerson, Burns & Vanderheyden, 2015). Individuals diagnosed with learning disabilities can derive benefits from effective teaching strategies, assistive technologies, and educational support systems tailored to meet their specific needs (Jimerson et al., 2015). Additionally, the significance of familial encouragement and positive teacher-student relationships should not be underestimated. Parents and educators who acknowledge the challenges faced by students with learning disabilities can provide them with the necessary support, timely encouragement, and appropriate resources to facilitate their academic success (Shogren et al., 2015).

In consideration of the intricate challenges faced by students with learning disabilities, it is imperative that research endeavors take into account early detection, specialized teaching, adaptations, and assistance (Cortiella & Horowitz, 2014). By addressing these aspects, researchers can contribute to enhancing educational involvement and maximizing academic progress for these individuals.

2.6 Theories on Inclusive Education and the Academic Performance of Students with Learning Disabilities

2.6.1 Peer Modeling Theory

The peer modeling theory was introduced by psychologist Albert Bandura, suggesting that individuals can acquire new behaviors, attitudes, and skills through observation and imitation (Bandura, 1977). In the context of inclusive education, this theory asserts that students with learning disabilities can improve their academic

performance by observing their non-disabled peers, who serve as role models for the disabled students.

- Attention processes play a crucial role in the learning experiences of students identified as having learning disabilities. These students may exhibit heightened focus and interest in learning when observing their peers, as they often find it easier to comprehend information from their peers compared to teachers or other educational materials utilized in instructional activities.
- Retention processes: Therefore, by observing the behaviours, strategies, and approaches to learning of their peers, students can improve their ability to encode information pertaining to learning disabilities into their memory.
- Reproduction processes involve students with learning disabilities observing their peers and subsequently engaging in practice with other students. Through mimicking observed behaviors and strategies, these students can enhance their skills and make progress academically.
- Motivational processes: The observation of their peers' accomplishments serves as a source of encouragement for learners with learning disabilities, fostering a belief in their own capabilities and motivating them to persevere. Consequently, this heightened motivation compels them to exert greater effort in order to surmount the academic hurdles set before them.

Inclusive education is connected to the peer modeling theory, which allows students with learning disabilities to learn in various styles. By observing problem-solving strategies used by their non-disabled peers, students with learning disabilities can enhance their academic performance (Maheady et al., 2001). Through this process, students with learning disabilities can observe and adopt effective learning techniques, leading to improved learning patterns and increased confidence in their abilities.

2.6.2 Zone of Proximal Development (ZPD) Theory

The concept of the Zone of Proximal Development (ZPD) was introduced by the Russian psychologist Lev Vygotsky to emphasize the significant influence of social interactions and supportive environments in the process of learning (Vygotsky, 1978). According to Vygotsky, the ZPD refers to the difference between the learner's current level of

ability or skill development and the potential level that can be reached with the assistance of a more competent peer.

The ZPD theory of integration posits that disabled children should be placed in regular classrooms, where they can engage in activities, study, and learn alongside non-disabled peers, supported by educators, specialists, and other professionals (Vygotsky, 1978). By participating in this environment, these students will gradually develop higher-order skills, thereby improving their academic performance.

The Zone of Proximal Development (ZPD) theory holds significance in the context of inclusive education for various reasons.

- Peer collaboration in integrated classrooms facilitates interactions between students with learning disabilities and their non-disabled peers. These interactions can help clarify complex lessons, explain concepts, and provide alternative perspectives, thereby creating opportunities for learning within the Zone of Proximal Development (Mallory & New, 1994).
- Differentiated instruction holds significance as teachers in specialized classes can provide tailored teaching and support to students based on their zone of proximal development. This approach allows students with learning difficulties to receive the necessary support to progress in their learning, while the teacher closely monitors their learning advancement (Dixon & Verenikina, 2007).
- Diverse learning experiences: Vygotsky (1978) proposed that students with learning disabilities benefit from a variety of learning styles, experiences, and perspectives present in an inclusive classroom. This diversity creates a rich learning environment that caters to the Zone of Proximal Development (ZPD) of the students.

The Zone of Proximal Development (ZPD) principle can be effectively applied in an inclusive educational setting to provide scaffolding for learning and facilitate the delivery of instruction to students with learning disabilities. This approach assists in gradually improving their academic skills and performance.

3 Empirical Framework

In recent years, inclusive education has become a

subject of extensive research and debate, particularly regarding its effects on students with learning disabilities. Academic performance stands out as a key variable that has attracted considerable interest, with concerns raised about the ability of inclusive settings to adequately cater to the learning requirements of these students (Amor et al., 2018 & Cologon, 2020). Various meta-analyses and systematic reviews have produced conflicting results, underscoring the intricate web of factors that impact the academic achievements of students with learning disabilities in inclusive educational settings.

Instructional strategies and support systems play a crucial role in determining the academic achievement of students with learning disabilities in inclusive environments. Browder et al. (2018) conducted a study on the effectiveness of evidence-based instructional methods, including systematic instruction, and concluded that their application led to enhanced academic results for students with notable cognitive disabilities in inclusive classroom settings.

The significance of teacher attitudes, preparedness, and self-efficacy in the context of inclusive education has been extensively researched. Malinen et al. (2013) discovered a positive correlation between teachers' favorable attitudes towards inclusion and higher levels of self-efficacy, which, in turn, led to improved academic outcomes for students with special educational needs. Hehir and Katzman (2012) emphasized the critical role of comprehensive teacher training and professional development in promoting inclusive practices and enhancing student achievement. Ugwu and Onukwufor (2018) conducted a study that focused on a key obstacle to the implementation of inclusive education, specifically the attitudes of principals towards inclusion in a region in Nigeria's South-South area. They utilized a survey questionnaire to gather data from 116 principals in both public and private schools in Rivers State, Nigeria, employing stratified random sampling. The collected data underwent analysis using both descriptive and inferential statistics. The results indicated that principals with adequate knowledge of inclusive education exhibited positive attitudes towards it, and vice versa. This underscores the potential for principals' current levels of knowledge within educational institutions to drive the expansion of inclusive education in schools. Similarly, in a

survey conducted by Beyene and Tizazu (2011) on teachers' attitudes towards inclusive education in Ethiopia, a significant 63 percent of participating educators noted a lack of adequate preparation in managing children with challenges and disabilities. They also encountered obstacles such as insufficient educational resources and negative attitudes from parents and authorities towards inclusive education. These combined challenges render the goal of inclusive education unattainable in the country. Causton and Theoharis (2013) argued in their research that educators were ill-prepared to address the increasing number of students with impairments, particularly those with behavioral issues in the classroom. These students often disrupt classes, compromising the learning environment. The researchers asserted that teachers lack the requisite knowledge and skills to effectively support students with disabilities, leading to feelings of dissatisfaction.

Socio-emotional factors, such as self-concept, social integration, and peer acceptance, have also been identified as potential mediators or moderators of the relationship between inclusive education and academic performance (Avramidis & Norwich, 2019). Koster et al. (2009) found that positive peer relationships and a sense of belonging in inclusive classrooms were associated with higher levels of academic engagement and motivation, which can ultimately contribute to improved learning outcomes. However, several gaps and limitations in the existing literature have been identified. Many studies have focused on specific disabilities or age groups, limiting the generalizability of their findings to diverse student populations (Cologon, 2020). Additionally, there is a paucity of research that specifically examines the experiences and perspectives of students with learning disabilities, their parents, and teachers within the African context (Ainscow, 2020; Waitoller & Artiles, 2013). Furthermore, the majority of studies have relied on quantitative measures of academic achievement, overlooking the qualitative aspects of inclusive education and its impact on students' overall well-being, self-esteem, and social-emotional development (Graham & Slee, 2008; Runswick-Cole, 2011).

To address these gaps, there is a need for comprehensive, context-specific research that combines quantitative measures of academic performance with qualitative insights from key stakeholders, such as students, teachers, and

administrators. This mixed-methods approach can provide a nuanced understanding of the complex interplay between inclusive education practices, instructional strategies, socio-emotional factors, and academic outcomes for students with learning disabilities (Malinen et al., 2013; Ainscow, 2020). Therefore, the present study explored the impact of inclusive education on the academic performance of students with disabilities in Abia State, Nigeria.

4 Methodology

4.1 Research Design

This study employs a mixed-methods research design, integrating both quantitative and qualitative techniques to investigate the impact of inclusive education on the academic performance of students with learning disabilities.

4.2 Population and Sample

The target population for this study consists of:

Students with Learning Disabilities: A study was conducted on students with learning disabilities from three senior secondary schools in Abia State, Nigeria (Ngwa High School, Ibeku High School, and Government College Umuahia). The sample consisted of 30 students, with 10 students selected from each school.

Educators: Special education instructors and inclusive education teachers who work with students who have learning difficulties. There are 24 teachers (6 teachers from each of the 3 schools) and 3 heads of school (1 from each school).

4.3 Sampling Techniques

For this study, a purposive sample of 10 students with learning disabilities was selected from each of the three schools, ensuring a total sample of 30 students.

For educators, 24 teachers and 3 school principals across the three schools were purposively selected.

4.4 Instruments for Data Collection

Quantitative:

Standardized achievement tests are used to assess the academic performance of students with learning disabilities.

Self-report questionnaires (designed on a 5-point scale) for students and teachers regarding self-concept, perceptions of inclusive education, and other relevant measures.

Qualitative:

Semi-structured interviews with school principals.

4.5 Validity and Reliability

Established validity and reliability measures will be utilized for the standardized achievement tests and self-report questionnaires. The semi-structured interviews and observations will follow validated protocols.

4.6 Procedures for Data Collection

Achievement tests and questionnaire data will be collected from the 30 students with learning disabilities across the three schools. Semi-structured interviews will be conducted with 10 students, 10 parents/guardians, all 24 teachers, and the three heads of school across the three schools.

4.7 Methods of Data Analysis

Quantitative data from achievement tests and questionnaires will undergo appropriate statistical analysis (e.g., descriptive statistics, inferential statistics). Qualitative data from interviews were thematically analyzed to identify key patterns and insights. The quantitative and qualitative data were integrated to provide a comprehensive understanding of the research objectives.

5 Results

5.1 Demographic Data of Respondents

This table presents the analysis of the demographic profile of the respondents, including socioeconomic status, gender, and age.

Table 1: Students with Learning Disabilities

Demographic Variable	Category	Frequency	Percentage
Age	9-16 years	18	60%
	17-19 years	12	40%
Gender	Male	16	53.3%
	Female	14	46.7%

Field Survey, 2024

Based on the analysis, 60% of the students with learning disabilities were between 9-16 years of age, and 40% were between 17-19 years of age. This shows that the sample involves different ages

within the population of students. The ratio of male and female students with learning disabilities in the sample group was almost equal, with 53.3% being male and 46.7% being female.

Table 2: Teachers

Demographic Variable	Category	Frequency	Percentage
Age	21-30 years	4	16.7%
	31-30 years	7	29.1%
	41-50 years	10	41.7%
	50+ years	3	12.5%
Gender	Male	10	41.7%
	Female	14	58.3%
Years of Teaching Experience	0-5 years	4	16.7%
	11-15 years	8	33.3%
	16+ years	6	25%

Field Survey, 2024

The teachers constituted a diverse group in terms of age distribution: the majority (41.7%) fell within the age range of 41-50 years. The second largest group was aged 31-40 years, accounting for 29.1%, followed by 21-30 years at 16.7%, and those over 50 years at 12.5%. This distribution suggests that the teaching staff comprises both experienced educators and relatively young teachers. In terms of gender, 58.3% of the teachers were female, while 41.7% were male.

In relation to teaching experience, a considerable proportion had 11-15 years (33.3%), 16+ years (25%), and 0-5 years (16.7%). These

findings indicate a diverse range of experience among the teaching staff, with a slightly higher percentage of highly experienced teachers overall.

The demographic analysis indicates a cross-sectional distribution of students' ages and a nearly equal distribution of male and female students. The sample of teachers predominantly comprised older females, with ages ranging from 41-50 and 31-40, and a relatively more experienced population, many of whom had over 10 years of teaching experience.

5.2 Research Question 1: What is the impact of inclusive settings on the learning of students with

learning disabilities in mainstream classrooms?

Table 3: Impact of Inclusive Setting on the Learning of Students with Learning Disabilities

Findings	Frequency	Percentage
Improved academic performance	18	60%
No significant change	9	30%
Decreased academic performance	3	3%

The findings indicate that a majority of students in the learning disabilities group (60%) showed improved performance in inclusive environments compared to segregated ones. Nevertheless, 30% of the students reported no notable differences, while 10% experienced a decline in academic achievement. These results suggest that while inclusive settings have a beneficial impact on the education of students with learning disabilities,

outcomes vary depending on the specific inclusive practices and environments.

5.3 Research Question 2: What are the attitudes of students teachers and administrators towards the integration of inclusive education and how does this integration influence the performance of learners with learning disabilities?

Table 4: Students' Attitudes

Attitudes	Frequency	Percentage
Positive (e.g. improved self-confidence, social inclusion)	22	73.3%
Neutral	5	16.7%
Negative (e.g., feelings of isolation, stigma)	3	10%

Table 5: Teachers' Attitudes

Attitudes	Frequency	Percentage
Positive (e.g. belief in inclusive education's benefits).	16	66.7%
Neutral	4	16.7%
Negative (e.g., concerns about workload, shortage of resources).	3	10%

The analysis revealed that 73.3% of students and 66.7% of teachers exhibited positive attitudes towards integrated learning. This was attributed to factors such as increased self-confidence, social inclusion, and a belief in the positive impacts of inclusion. However, the attitudes of the participants, both students, and teachers, were predominantly neutral. Specifically, 16.7% of the participants expressed a neutral stance towards distance learning, while 10% of students and 16.7% of teachers held negative attitudes towards it. These negative attitudes were associated with feelings of isolation, stigmatization, workload, and perceived lack of resources.

Administrators' Attitudes (Qualitative Analysis)

Table 6: School Policies Regarding Inclusion

Head of School	Responses
I	The implemented policy stipulates that equal opportunities must be provided to every child, irrespective of their faction, ability, or social status.
II	The policy that has been developed includes a code of conduct outlining the accommodation of disabled learners. However, there are several issues regarding its enforcement.
III	There is no formal policy in place; however, students and teachers are advised and encouraged to treat others without discrimination.

Table 6 above illustrates the perspectives on the school policy regarding inclusive education. Analyzing the attitudes of administrators towards school policies concerning inclusion provides significant insights into the different implementation approaches and challenges encountered in the three schools under study.

Head of School I:

The administrator affirmed the presence of a specific policy at their school mandating equal educational opportunities for all children, irrespective of their abilities, disabilities, or social status. This policy reflects the institution's commitment to fostering a non-discriminatory

environment and adhering to the principles of inclusive education.

Head of School II:

As articulated by the administrator, the educational institution where they are employed adheres to a policy that considers the code of conduct in managing students with disabilities. Nevertheless, the administrator acknowledged challenges that may arise in enforcing or implementing this policy. This situation prompts an inquiry into the distinction between the existence of a policy and its successful implementation in practice.

Head of School III:

In contrast to the initial two schools that were subject to the researcher's interviews, the administrator of this particular school indicated the absence of a formal policy regarding inclusive practices. However, it was noted that both students and teachers receive guidance and support to accept individuals without prejudice, suggesting a less stringent approach to anti-discrimination protocols.

The interview with three administrators' responses reveals the extent of policy development and implementation of inclusive education in their respective schools. School I and School II have established written policies, whereas School II reported encountering challenges in policy implementation, and School III lacks a written policy. This suggests a range of strategies being employed and obstacles being faced in the delivery of inclusive education by schools. While certain schools have taken steps to implement policies and guidelines on inclusion, this process may still be evolving in other schools as they continue to develop methods for implementing inclusion or encounter challenges along the way.

While administrators expressed strong

support for the policy of inclusion and endorsed the promotion of inclusive practices, they also highlighted numerous constraints and barriers within their schools that impede the effective implementation of inclusion. Key areas identified as crucial for advocating for students with learning disabilities and improving their performance and academic success in inclusive education encompass:

- **Challenges in Implementation:** Interviewees highlighted insufficient funding, a lack of qualified human resources, and inadequate teaching-learning resources as the primary barriers to the successful implementation of inclusive education.
- **Need for Professional Development:** Administrators have highlighted the significance of providing comprehensive professional development and training for teachers. This training is essential to equip teachers with the necessary skills to effectively educate students with diverse learning needs within inclusive educational environments.
- **Infrastructure Limitations:** Administrators who participated in the survey pointed out deficiencies in the physical environment, accessibility, and the absence of dedicated facilities for integration as obstacles to the implementation of inclusive practices.
- **Collaborative Approach:** In relation to the execution of inclusive education principles, administrators observed that it was essential for parents, teachers, and other support personnel to collaborate closely.

5.4 Research Question 3: To what extent does the implementation of instructional strategies, teacher attitudes and self-efficacy, and socio-emotional factors moderate between inclusive education and the academic performance of students with learning disabilities?

Table 7: Instructional Strategies

Moderating Factor	Mean	Standard Deviation
Instructional Strategies		
Differentiated Instruction	3.8	0.9
Co-teaching	3.6	1.1
Use of Assistive Technology	2.7	1.3

Teachers in inclusive classrooms demonstrated a moderate to high level of implementation of differentiated instruction and co-teaching, with mean scores exceeding 3.5 on a five-point scale. In contrast, a lower frequency of use was observed for

assistive technology, with a mean score of 2.7. The study revealed that while the utilization of differentiated instruction and co-teaching strategies showed relatively high variability in inclusive classrooms, this finding supports the notion that

instructional approaches are tailored for students with learning disabilities. Conversely, the utilization of assistive technology was limited,

indicating a potential area for further enhancement and growth.

Table 8: Teacher Attitudes and Self-Efficacy

Moderating Factor	Mean	Standard Deviation
Teacher Attitudes and Self-Efficacy		
Attitudes towards Inclusion	4.1	0.8
Teacher Self-Efficacy	3.9	0.7

In terms of their attitude and self-efficacy, teachers exhibited a slightly positive attitude towards the principles of inclusive education, with a mean score of 4 out of 5. Additionally, their levels of teacher self-efficacy were moderate, with a mean score of 3.9. These findings suggest a generally positive

attitude among teachers towards inclusive education, coupled with moderate self-efficacy levels that could potentially act as a mediator between inclusive education and the academic performance of students with learning disabilities.

Table 9: Socio-Emotional Factors

Moderating Factor	Mean	Standard Deviation
Socio-Emotional Factors		
Peer Acceptance	3.7	1.0
Sense of Belonging	3.5	0.9
Self-Concept	4.0	0.8

In terms of socio-emotional factors, students identified as having learning disabilities reported experiencing moderate to high levels of peer acceptance (mean of 3.7) and a sense of belonging in inclusive classrooms (mean of 3.5). Their self-concept levels were slightly above average ($M = 4.0$). The data from the descriptive statistics provide evidence supporting the hypothesis that students with learning disabilities are integrated and accepted in inclusive classrooms alongside their non-learning disabled peers, with significant levels of peer acceptance, sense of belonging, and positive self-concept. These elements could potentially serve as mediators in the relationship between inclusive education and academic performance, contributing positively to the outcomes.

6 Discussion

The study aimed to examine the impact of implementing inclusive education on the academic achievement of children with learning disabilities in Abia State, Nigeria. The results revealed a nuanced and complex scenario that aligns with the growing body of literature on inclusive education.

The study revealed that 60% of students with learning disabilities experienced academic improvements in inclusive classrooms compared to segregated ones. This finding aligns with previous

meta-analyses by Dessementet et al. (2011), which reported modest yet statistically significant positive effects on learning outcomes, particularly in reading and mathematics. It is important to note, however, that a third of the students showed minimal progress, while a smaller percentage of 10% experienced a decline in their performance. These varied results underscore the complex interplay of factors influencing the effectiveness of inclusive education, as emphasized by Demeris et al. (2007) and Ainscow (2020).

The potential moderating factors that can enhance students' achievement in inclusive classrooms include the concepts of differentiated instruction and co-teaching practices. This assertion is supported by previous studies conducted by Browder et al. (2018), which emphasized the benefits of evidence-based instructional practices for learners with learning difficulties, and by Murawski (2006), who highlighted the effectiveness of co-teaching models in addressing the diverse needs of students. However, the underexplored aspect of assistive technology utilization in inclusive settings may be considered a limitation, as previous research (King-Sears et al., 2015) has identified technology as one of the most effective tools for improving access to knowledge for students with disabilities.

The study revealed a positive association

between teacher attitudes and self-efficacy. This finding suggests a potential moderating effect on the relationship between inclusive education and academic performance. Consistent with previous research by Malinen et al. (2013) and Hehir and Katzman (2012), the study supports the idea of a positive correlation between the inclusion of students with special needs in general classrooms, teacher perceptions and training, and students' academic achievement. The high level of teacher self-efficacy observed in this study may be attributed to the support and professional development opportunities available in the Nigerian educational context.

Socio-emotional factors such as peer acceptance, sense of belonging, and self-concept were found to be moderately to highly present in inclusive classrooms. This positive socio-emotional environment could potentially act as a mediator in the relationship between inclusive education and academic success, as evidenced by Avramidis and Norwich (2019) and Koster et al. (2009). The favorable self-concept and sense of belonging reported by students with learning disabilities in inclusive settings may have contributed to increased motivation, engagement, and ultimately academic achievement.

A novel approach in this research focuses on utilizing Nigerian settings, particularly Abia State, where there is a recognized necessity for enhancing inclusive education (Obiakor & Ofor, 2011). While inclusive education has been initiated in numerous developed nations, the challenges and circumstances in developing countries necessitate a deeper comprehension of the perspectives and experiences of the primary stakeholders (Cologon, 2020; Graham & Slee, 2008). Involving students, teachers, and administrators in the research renders the findings valuable in uncovering the factors influencing inclusive education within the Nigerian context.

The qualitative nature of the data collected from administrators has contributed to a deeper understanding of the complexities involved in the successful implementation of inclusive practices. Despite endorsing the inclusive education policy, administrators highlighted challenges such as insufficient funding, a shortage of teachers, and inadequate physical infrastructure. These findings align with existing literature on inclusive education in developing countries, where socio-economic barriers, cultural beliefs, and resource limitations

hinder the effectiveness of inclusive education (Chireshe, 2013). Furthermore, administrators underscored the importance of continuous professional development and teacher training, as noted in previous studies by Hehir and Katzman (2012) and Malinen et al. (2013). Equipping teachers with the necessary knowledge, skills, and strategies to cater to diverse student needs is crucial for enhancing effective and efficient teaching and learning outcomes for all students.

Another significant contribution of this study is the incorporation of both quantitative indicators of academic performance and moderator variables, along with qualitative data obtained from stakeholders. This comprehensive approach fills a gap in prior research, which predominantly emphasized quantitative measures of academic success (Graham & Slee, 2008; Runswick-Cole, 2011).

The study's findings offer valuable insights into the impact of inclusive education on the academic performance of students with learning disabilities in Abia State, Nigeria. However, it is important to acknowledge certain limitations. While the sample size is deemed appropriate for the mixed-methods approach employed, the generalizability of the results to other regions or educational settings in Nigeria may be limited. Additionally, the study's utilization of a cross-sectional research design provides a snapshot of the current situation, highlighting the necessity for longitudinal research to assess the enduring effects of inclusive practices on students. Nonetheless, this study contributes significantly to the existing literature on inclusive education and its effects on students with learning disabilities. It underscores the importance of instructional methodologies, teachers' perspectives, socio-emotional factors, and contextual considerations, advocating for comprehensive, evidence-based strategies for the successful implementation of inclusive practices in Nigerian educational institutions.

7 Conclusion

Inclusive education is not solely a process; rather, it represents a significant perspective that instigates transformations in educational practices, policies, and cultures, while also facilitating the examination of diverse learning requirements. This study, which integrates qualitative and quantitative research methodologies, offers a fresh insight into comprehending the correlation between inclusive

education and the academic achievements of students with learning disabilities in Abia State, Nigeria. The study has demonstrated the validity of the statement that when students with learning disabilities are integrated into inclusive settings, a majority of them experience academic improvements. Nevertheless, the path to success varies among individuals. The findings revealed discrepancies in perspectives, indicating the absence of universally applicable factors that dictate the effectiveness of inclusive strategies. These variations underscore the importance of personalized learning, as each learner may have unique requirements and influences that impact their educational journey. The study further revealed that instructional strategies, teacher attitudes, and socio-emotional factors play a significant role in the relationship between inclusive education and academic performance. Differentiated instruction and co-teaching approaches were identified as essential elements for improving student achievement, highlighting the importance of teacher professional development. Positive teacher attitudes and self-efficacy were also recognized as critical factors in promoting inclusive practices, emphasizing the need for a supportive learning environment for both teachers and students. Besides, the study found that socio-emotional factors significantly impact the learning experiences of students with disabilities in educational settings. Factors such as peer acceptance, sense of belonging, and positive self-attitudes were identified as influences that could either facilitate or hinder the learning process. These findings underscore the importance of integrating students with disabilities in a comprehensive manner that not only focuses on academic outcomes but also addresses their social, emotional, and psychological needs.

Additionally, the study provided insights into the potential benefits and challenges of inclusive education in Abia State, Nigeria. It also emphasized the contextual factors that shape the Nigerian education system. Administrators, teachers, and students advocated for increased resources, improved school facilities, and collaborative efforts to address the multifaceted issues hindering the inclusion of all students. While the international community continues its efforts to establish fully inclusive education for diverse learners, it is essential to address the various spectrums arising from cultural, economic, and educational

disparities. The implications of the findings of this study serve as a call to action for policymakers, educators, and other stakeholders to adopt a context-based approach in tackling challenges and leveraging opportunities within the Nigerian education system. In essence, ensuring inclusive education for disabled children is not a one-time endeavor but an ongoing and lifelong process of realization. This endeavour necessitates continuous research, collaboration, and a willingness to adapt existing paradigms and practices. By empowering learners with inclusive principles, drawing from the experiences and perspectives of children who have firsthand knowledge of what an inclusive education system entails, we can strive towards creating a more inclusive society for all learners.

Recommendations:

Based on the findings of this study, various recommendations can be proposed to improve the efficacy of inclusive education and bolster the academic achievements of students with learning disabilities in Abia State, Nigeria.

- **Investing in Comprehensive Professional Development:** It is imperative to prioritize ongoing professional education and development to ensure that educators and other staff members working with children with disabilities possess the necessary knowledge, skills, and strategies to effectively implement inclusive practices. These programs should cover a range of topics, including instructional delivery methods tailored to diverse learners, the utilization of technology such as computers and other devices to enhance learning, and strategies for fostering a conducive and healthy learning environment.
- **Strengthening Collaborative Practices:** Factors such as teacher professional development, motivation, and commitment, leadership, parent engagement, and involvement of support personnel play a crucial role in enhancing collaboration for inclusive education. Facilitating effective and timely communication and promoting organizational learning to implement best practices to support students with learning disabilities can create a conducive learning environment in educational settings for these children.
- **Enhancing Access to Assistive Technology:** It is imperative to allocate resources towards the

acquisition of assistive technologies to support the educational needs of students with diverse disabilities. Customizing information on the functionalities of specific assistive technologies within curricula and providing guidance on their implementation are effective strategies for enhancing learning outcomes and promoting inclusivity.

- **Prioritizing Socio-Emotional Support:** It is crucial to address the socio-emotional needs of students with learning disabilities (LDs) in inclusive settings, in addition to providing academic support. Implementing interventions that focus on improving peer acceptance, fostering a sense of belonging, and enhancing self-esteem can mitigate social alienation among students and enhance their academic performance.
- **Conducting Regular Monitoring and Evaluation:** It is essential to promote the establishment of a robust and consistent monitoring and evaluation framework that can be utilized to assess inclusive education policies and practices.
- **Fostering Community Awareness and Advocacy:** Increasing awareness at the community level and promoting advocacy efforts can help eliminate potential barriers that perpetuate traditional societal norms affecting the effective implementation of inclusive education. Collaborating with community members, families, and stakeholders can enhance the acceptance and support for learners with learning disabilities.

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