

Inclusive Early Childhood Education: Best Practices for Integrating Children with Special Needs in Mainstream Settings

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Article History	Abstract
Original Research Article	<i>This study examined best practices for integrating children with special needs into mainstream early childhood education settings in Nigeria, with particular attention to inclusive teaching strategies, teacher preparedness, classroom adaptations, parental involvement, and challenges affecting successful inclusion. The study was motivated by the growing recognition of inclusive education as a means of promoting equal learning opportunities and social participation for all children regardless of their abilities or disabilities. A descriptive survey research design was adopted for the study. The population comprised preschool teachers, caregivers, and parents drawn from selected nursery schools in the Abuja Municipal Area Council, Nigeria. Using a descriptive survey design with 360 preschool teachers, caregivers, and parents, data were collected through the Inclusive Early Childhood Education Questionnaire (IECEQ), which demonstrated strong reliability ($\alpha = 0.89$). Data analysis was conducted using mean scores, standard deviation, Pearson Product Moment Correlation, and t-test statistics. The findings revealed that differentiated instruction, collaborative learning approaches, the use of assistive technologies, and strong teachers – parent partnerships significantly enhance the academic engagement, social participation, and overall development of children with special needs in mainstream classrooms. The study further identified inadequate teacher training, limited instructional resources, overcrowded classrooms, and persistent societal stigma as major obstacles to effective inclusive education implementation. The study concluded that well-implemented inclusive early childhood education fosters equity, empathy, social integration, and holistic child development. It recommended increased government funding, continuous professional development for teachers, curriculum adaptation, improved provision of instructional resources, and stronger enforcement of inclusive education policies. Furthermore, the study recommends embedding inclusive pedagogy into teacher training curricula, strengthening parental advocacy, and aligning early childhood inclusion with broader disability-inclusion strategies to foster equity, empathy, and holistic child development.</i> Keywords: Inclusive Education, Early Childhood Education, Special Needs Education, Mainstream Classrooms, Preschool Inclusion, Differentiated Instruction.
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Introduction

Inclusive education has emerged as one of the most significant educational reforms of the twenty-first century, driven by the growing recognition that every child has the fundamental right to access quality education irrespective of physical, intellectual, emotional, social, or

developmental differences. Across the world, educational systems are increasingly shifting from segregated models of schooling towards inclusive approaches that embrace diversity and ensure equal participation for all learners. This global movement is supported by international

frameworks such as the United Nations Convention on the Rights of Persons with Disabilities and the Sustainable Development Goals, both of which advocate equitable and inclusive educational opportunities for every child (Edinoh et al. 2025). According to Kontagora (2025) aligning early childhood inclusion with broader disability-inclusion strategies will foster equity, empathy, and holistic child development.

Within the context of early childhood education, inclusion refers to the practice of educating children with special educational needs alongside their typically developing peers in regular classroom settings while providing the necessary instructional, social, and environmental supports required for meaningful participation. Early childhood represents a critical period in human development during which cognitive, social, emotional, and language foundations are established. Consequently, ensuring that children with special needs have access to inclusive learning environments during these formative years is essential for maximising their developmental potential and preparing them for future educational success, Edinoh, Onah & Oluwole (2025).

The philosophy underpinning inclusive early childhood education is rooted in the principles of equality, social justice, diversity, and child-centred pedagogy. Rather than viewing disability as a limitation that necessitates separation, inclusive education recognises diversity as a natural characteristic of human societies and seeks to create learning environments where all children can learn together regardless of their individual differences. Such environments encourage mutual respect, co-, and acceptance while promoting a sense of belonging among learners. According to the United Nations Educational, Scientific and Cultural Organisation (UNESCO, 2020), inclusive education ensures that educational systems respond effectively to the diverse learning needs of all children through increased participation in learning, cultures, and communities.

A growing body of empirical evidence demonstrates the numerous benefits associated with inclusive early childhood education. Research has shown that children with special needs who participate in inclusive settings often exhibit improved language development, social competence, communication skills, self-esteem, and academic achievement compared to those educated in segregated environments (Odom et al., 2018; Barton & Smith, 2015). Inclusive classrooms provide opportunities for children with disabilities to observe and interact with typically developing peers, thereby facilitating the acquisition of social and behavioural skills through modelling and collaborative learning experiences.

The advantages of inclusion are not limited to children with special needs alone. Studies indicate that typically developing children also benefit significantly from inclusive educational environments. Exposure to diverse peers promotes empathy, compassion, tolerance, co-operation, and respect for individual differences. Children learn to appreciate diversity and develop positive attitudes toward people with disabilities from an early age, thereby contributing to the creation of more inclusive and equitable societies (Ruijs & Peetsma, 2019). Furthermore, inclusive classrooms encourage teachers to adopt innovative instructional practices that cater to varied learning styles, ultimately enhancing educational quality for all learners.

Despite the widespread recognition of the importance of inclusive education, its implementation remains a significant challenge in many developing countries, including Nigeria. In Nigeria, despite supportive policies, and establishment of a disability commission, implementation remains uneven due to teacher capacity gaps, resource shortages and persistent stigma. Early childhood education is a critical stage for inclusion, as it lays the foundation for lifelong learning and social participation. Many early childhood education centres lack adequately trained personnel capable of addressing the diverse learning needs of children with disabilities. In addition, shortages of assistive technologies, specialised instructional materials, accessible infrastructure, and support services continue to limit the effectiveness of inclusive practices.

Societal perceptions and cultural attitudes toward disability also present significant barriers to successful inclusion. In some communities, misconceptions and stigmatisation surrounding disability contribute to the marginalisation of children with special needs, reducing their opportunities for participation in mainstream educational settings. Such attitudes may influence parental decisions, peer interactions, and institutional responses to inclusion, thereby undermining efforts aimed at creating equitable learning environments.

Research relating to early childhood instructional ecology emphasises the importance of supportive, collaborative, and responsive learning environments in fostering children's engagement, participation, and holistic development. Similarly, studies on educational innovation and educational challenges in Nigeria have consistently highlighted the need for adaptive educational systems capable of accommodating learner diversity while ensuring equitable access to quality education. These perspectives underscore the importance of developing evidence-based strategies that can strengthen inclusive practices within Nigerian preschool settings.

Given the increasing emphasis on educational equity and the persistent challenges confronting inclusive education in Nigeria, there is a need to identify effective practices that can facilitate the successful integration of children with special needs into mainstream early childhood classrooms. This study therefore examined best practices for integrating children with special needs into mainstream early childhood education settings in Nigeria, with the aim of providing empirical evidence that can inform policy, practice, and future research in inclusive education.

Statement of the Problem

The global acceptance of inclusive education reflects a growing commitment to ensuring that all children, regardless of their abilities or disabilities, have equal opportunities to access quality education within supportive and non-discriminatory learning environments. Despite this commitment, the effective integration of children with special needs into mainstream early childhood education settings remains a major challenge in Nigeria. Although educational policies advocate inclusion, the reality in many preschool centres suggests that significant barriers continue to hinder successful implementation.

Children with hearing impairments, visual impairments, autism spectrum disorders, speech and language difficulties, physical disabilities, learning disabilities, and developmental delays frequently encounter obstacles that limit their full participation in regular classroom activities. In many instances, these children experience social exclusion, inadequate instructional support, and limited opportunities for meaningful interaction with their peers. Such experiences may negatively affect their academic progress, social development, emotional well-being, and overall educational outcomes.

One of the major challenges confronting inclusive early childhood education in Nigeria is the inadequate preparation of teachers. Many preschool educators have limited training in special needs education, inclusive instructional methods, classroom adaptation techniques, and behaviour management strategies. Consequently, they may struggle to address the diverse learning needs present within inclusive classrooms. Furthermore, inadequate professional development opportunities often prevent teachers from acquiring the specialised competencies required for effective inclusion.

The problem is further compounded by insufficient educational resources and infrastructural deficiencies. Many schools lack assistive technologies, specialised learning materials, accessible classroom facilities, and support personnel necessary for accommodating children with disabilities. Overcrowded classrooms and limited

funding also make it difficult for teachers to provide individualised attention and differentiated instruction.

Additionally, societal misconceptions and negative attitudes toward disability continue to contribute to discrimination and stigmatisation, thereby affecting the acceptance and participation of children with special needs in mainstream educational settings. These challenges collectively undermine the goals of inclusive education and limit the realisation of equitable learning opportunities for all children.

Consequently, many children with special needs remain underserved within the educational system and are deprived of the developmental benefits associated with inclusive learning environments. There is therefore a pressing need to identify and examine effective practices, strategies, and support mechanisms that can enhance the successful integration of children with special needs into mainstream early childhood education settings in Nigeria. This necessity constitutes the central problem that this study seeks to address.

Objectives of the Study

The study sought to:

1. Examine the influence of differentiated instructional strategies on the participation of children with special needs in mainstream classrooms.
2. Determine the effects of teacher preparedness on successful inclusive early childhood education.
3. Investigate the contribution of parental involvement to inclusive preschool education.
4. Identify challenges affecting the implementation of inclusive early childhood education in Nigeria.

Research Questions

1. How do differentiated instructional strategies influence participation among children with special needs in mainstream classrooms?
2. What effects does teacher preparedness have on inclusive early childhood education?
3. How does parental involvement contribute to successful inclusion in preschool settings?
4. What challenges affect the implementation of inclusive early childhood education in Nigeria?

Hypotheses

H₀₁: There is no significant relationship between differentiated instruction and participation of children with special needs in mainstream classrooms.

H02: There is no significant relationship between teacher preparedness and successful inclusive education practices.

Theoretical Framework

The theoretical framework for this study is anchored on theories that explain how children learn, interact, and develop within diverse educational environments. These theories provide a conceptual foundation for understanding the principles and practices of inclusive early childhood education, particularly the successful integration of children with special needs into mainstream classrooms. Specifically, the study draws on Vygotsky's Sociocultural Theory, Bronfenbrenner's Ecological Systems Theory, and the Universal Design for Learning (UDL) Framework because they collectively emphasise social interaction, environmental support, collaboration, and instructional flexibility as essential elements of inclusive education.

Vygotsky's Sociocultural Theory: Learning Through Social Interaction and Scaffolding.

Vygotsky's Sociocultural Theory, developed by the Russian psychologist Lev Vygotsky (1978), posits that learning and cognitive development occurs primarily through social interaction and participation in culturally meaningful activities. According to Vygotsky, children acquire knowledge and skills through interactions with more knowledgeable others, including teachers, parents, caregivers, and peers. A central concept of the theory is the *Zone of Proximal Development (ZPD)*, which refers to the gap between what a child can accomplish independently and what the child can achieve with guidance and support. Within the context of inclusive early childhood education, this theory highlights the importance of collaborative learning environments where children with special needs interact regularly with typically developing peers. Such interactions provide opportunities for observation, imitation, communication, and social learning. Teachers play a critical role by offering appropriate scaffolding that enables children to participate actively in classroom activities and gradually develop independence. Inclusive classrooms therefore become environments where diverse learners support one another, fostering both academic growth and social competence.

The theory suggests that meaningful learning occurs when social interaction and instructional support are combined to enhance development. This relationship can be represented as:

[text {Social Interaction + Educational Support} \rightarrow \text{Inclusive Learning and Development}]. The relevance of Vygotsky's theory to this study lies in its emphasis on peer collaboration, guided participation, and supportive teaching practices as key factors in the

successful integration of children with special needs into mainstream educational settings.

Bronfenbrenner's Ecological Systems Theory: Child Development Shaped by Interconnected Systems (Family, School, Community, Policy).

Bronfenbrenner's Ecological Systems Theory (1979) explains child development as a process shaped by interactions between the child and multiple environmental systems. The theory identifies several interconnected layers of influence, including the microsystem (family, school, and peers), mesosystem (relationships among immediate environments), exosystem (indirect environmental influences), macrosystem (cultural values and societal beliefs), and chronosystem (changes over time).

The theory recognises that a child's development does not occur in isolation but is influenced by the quality of interactions and relationships within these environmental systems. In the context of inclusive education, the successful integration of children with special needs depends not only on classroom practices but also on the support provided by families, schools, communities, government agencies, and educational policies.

Bronfenbrenner's perspective underscores the importance of collaboration among teachers, parents, school administrators, counsellors, policymakers, and community stakeholders. When these systems work together effectively, children with special needs are more likely to experience positive educational outcomes, social acceptance, and holistic development. Conversely, weaknesses in any of these systems may create barriers to successful inclusion.

The relevance of this theory to the present study lies in its recognition that inclusive education requires a coordinated and supportive network of relationships and resources. It provides a useful framework for examining how parental involvement, school support, educational policies, and societal attitudes influence the effectiveness of inclusion practices in early childhood settings.

Universal Design for Learning (UDL) Theory: Flexible Teaching Approaches Providing Multiple Means of Engagement, Representation, and Expression

The Universal Design for Learning (UDL) Framework emerged from the work of the Center for Applied Special Technology (CAST) and is widely recognised as a contemporary approach to inclusive education. UDL is based on the principle that educational environments should be designed from the outset to accommodate the diverse needs, abilities, and learning styles of all learners rather than requiring students to adapt to rigid instructional methods.

The framework advocates the use of flexible teaching approaches that provide multiple means of engagement, representation, and expression. Multiple means of engagement focus on motivating learners and sustaining their interest in learning activities. Multiple means of representation involve presenting information in different formats to accommodate diverse learning preferences and abilities. Multiple means of expression provide learners with varied opportunities to demonstrate their understanding and knowledge.

In inclusive early childhood classrooms, the UDL framework supports the adaptation of curriculum content, instructional materials, learning activities, and assessment methods to ensure that every child can participate meaningfully regardless of disability or developmental differences. It encourages educators to anticipate learner diversity and proactively design learning experiences that remove barriers to participation and achievement.

The relevance of UDL to this study stems from its direct focus on creating accessible and flexible learning environments that support inclusion. The framework provides practical guidance for implementing differentiated instruction, classroom adaptations, assistive technologies, and learner-centred teaching strategies that enhance the participation and success of children with special needs in mainstream preschool settings.

Synthesis of the Theoretical Framework

Collectively, Vygotsky's Sociocultural Theory, Bronfenbrenner's Ecological Systems Theory, and the Universal Design for Learning Framework provides a comprehensive foundation for understanding inclusive early childhood education. While Vygotsky emphasises the role of social interaction and guided learning, Bronfenbrenner highlights the influence of interconnected environmental systems on child development. The UDL framework complements these perspectives by offering practical strategies for creating flexible and accessible learning environments. Together, these theories support the view that successful inclusion requires collaborative relationships, supportive educational environments, adaptive teaching practices, and active participation from all stakeholders involved in the education of children with special needs.

Literature Review

Concept of Inclusive Early Childhood Education

Inclusive early childhood education has gained significant attention in educational discourse due to its emphasis on providing equitable learning opportunities for all children, regardless of their physical, intellectual, emotional, social, or developmental characteristics. The concept is founded

on the belief that every child has the right to participate meaningfully in educational experiences within a supportive and non-discriminatory environment. Inclusive education seeks to eliminate barriers to learning and participation by ensuring that children with disabilities and special educational needs learn alongside their typically developing peers in mainstream educational settings.

According to UNESCO (2020), inclusive education is a process that responds to learner diversity by increasing participation in learning and reducing exclusions within and from education. In early childhood settings, inclusion extends beyond physical placement in regular classrooms; it involves creating learning environments where all children feel valued, accepted, and supported. This requires modifications to curriculum, teaching strategies, classroom organisation, and assessment practices to accommodate diverse learning needs.

Scholars have consistently emphasised the developmental benefits of inclusive education during the early years. Odom et al. (2018) observed that inclusive settings provide opportunities for children with special needs to engage in meaningful social interactions, develop communication skills, and acquire age-appropriate behaviours through peer modelling. Similarly, Ruijs and Peetsma (2019) reported that children with disabilities who participate in inclusive classrooms often demonstrate improvements in social competence, self-esteem, academic engagement, and overall developmental outcomes.

The benefits of inclusion are not limited to children with special needs. Typically developing children also gain valuable experiences through interactions with diverse peers. Such interactions promote empathy, co-operation, respect for differences, and positive attitudes towards individuals with disabilities. As a result, inclusive education contributes to the development of socially responsible and tolerant future citizens while fostering a classroom culture built on acceptance and mutual respect (Edinoh & Wali-Essien (2023).

In recent years, inclusive early childhood education has increasingly been viewed as a critical component of educational quality and equity. Educational policymakers and researchers argue that effective inclusion during the preschool years lays a strong foundation for lifelong learning, social participation, and successful transition into later stages of formal education.

Differentiated Instruction in Inclusive Classrooms

Differentiated instruction is widely regarded as one of the most effective pedagogical approaches for addressing learner diversity within inclusive classrooms. The approach recognises that children differ in their readiness levels, interests, learning preferences, abilities, and developmental

needs. Consequently, teachers must adapt instructional methods, learning activities, classroom resources, and assessment techniques to ensure meaningful participation for all learners (Asemota, Edinoh & Attah 2026).

Tomlinson (2017) describes differentiated instruction as a flexible teaching approach that enables educators to respond to individual learner differences while maintaining common learning goals. Rather than adopting a one-size-fits-all method, teachers employ varied instructional strategies that accommodate diverse learning styles and developmental needs.

In early childhood inclusive settings, differentiated instruction may involve the use of visual aids, hands-on learning activities, storytelling, play-based learning, adaptive technologies, cooperative learning groups, and individualised support. Such strategies enable children with special needs to access learning content in ways that align with their abilities and strengths.

Research conducted by Florian and Beaton (2018) demonstrated that differentiated instructional practices significantly improve learning outcomes and classroom participation among children with disabilities. The study found that visual supports, multisensory teaching approaches, peer tutoring, and adaptive technologies help reduce learning barriers while promoting active engagement. Similarly, other studies have shown that individualised learning experiences enhance children's motivation, confidence, and academic performance.

The growing emphasis on differentiated instruction reflects a broader shift towards learner-centred education. Within inclusive classrooms, differentiated instruction ensures that diversity is viewed as a resource rather than a challenge. By adapting teaching practices to accommodate varied learner needs, educators create opportunities for all children to achieve their full potential.

Teacher Preparedness and Inclusive Education

Teacher preparedness is widely recognised as one of the most important factors influencing the success of inclusive education. The effectiveness of inclusion depends largely on teachers' knowledge, attitudes, competencies, and willingness to support children with diverse learning needs. Even the most well-designed inclusive policies may fail if teachers lack the skills and confidence required to implement them effectively.

Inclusive classrooms require teachers to possess a broad range of competencies, including knowledge of child development, disability characteristics, behavioural management strategies, classroom adaptation techniques, differentiated instruction, and assistive technology integration. Teachers must also be capable of fostering

positive social interactions and creating supportive learning environments where every child feels valued and included.

Research by Sharma and Sokal (2016) revealed that teachers who receive specialised training in inclusive education demonstrate greater confidence, positive attitudes, and instructional effectiveness when working with children with special needs. Likewise, Ainscow (2020) emphasised that teacher expertise remains central to overcoming barriers to participation and ensuring equitable learning opportunities.

Continuous professional development has emerged as a critical strategy for enhancing teacher preparedness. Training programmes focusing on inclusive pedagogy, collaborative teaching, classroom management, and culturally responsive instruction has been shown to improve teachers' ability to meet the needs of diverse learners. Such programmes also help educators remain informed about emerging practices, technologies, and policies related to inclusive education.

Despite growing awareness of the importance of teacher preparation, many developing countries continue to face shortages of trained personnel. In Nigeria, inadequate training opportunities and limited access to professional development programmes often constrain teachers' ability to implement inclusive practices effectively. This challenge highlights the need for sustained investment in teacher education and capacity building.

Parental Involvement in Inclusive Education

Parental involvement plays a vital role in promoting the successful inclusion of children with special needs in mainstream educational settings. Parents are often the individuals most familiar with their children's strengths, challenges, learning preferences, and developmental histories. Their active participation contributes significantly to educational planning, behavioural support, and academic progress.

Research consistently demonstrates that strong partnerships between families and schools positively influence children's educational experiences and developmental outcomes. Hornby and Blackwell (2018) noted that effective collaboration between parents and teachers enhances communication, facilitates early identification of learning needs, and promotes consistency between home and school environments.

Parental involvement can take various forms, including participation in school activities, attendance at meetings, communication with teachers, monitoring learning progress, and contributing to individualized educational planning. Such involvement enables educators to develop a

more comprehensive understanding of children's needs and to design interventions that are both relevant and effective.

For children with special needs, family-school partnerships are particularly important because they promote continuity in support strategies across different environments. Parents and teachers can work together to reinforce behavioural expectations, monitor developmental progress, and address emerging challenges. This collaborative approach enhances children's confidence, social adjustment, and academic achievement.

Furthermore, parental advocacy often plays a crucial role in promoting inclusive practices and ensuring that schools provide appropriate support services. Strong parental engagement therefore represents an essential component of successful inclusive education.

Disability-Inclusion in Broader Contexts: Workforce Preparation

UNESCO (2020) highlights five critical practice areas for inclusion: learning environments, instructional practices, supportive relationships, family partnerships, and professional collaboration. These are underdeveloped in Nigeria's ECCE framework.

Kontagora (2025) emphasises that disability-inclusive training in skills acquisition and entrepreneurship requires accessible environments, adaptive curricula, and psychosocial support. These principles are transferable to early childhood education, underscoring the need for inclusive infrastructure, flexible learning pathways, and empowerment of caregivers. The disability-inclusion training guide for skills acquisition and entrepreneurship development highlights:

- i. **Universal Design for Learning (UDL):** Flexible engagement, representation, and expression strategies.
- ii. **Assistive Technologies:** Low-cost, context-appropriate devices for communication and learning.
- iii. **Inclusive Infrastructure:** Accessible classrooms, WASH facilities, and safe learning environments.
- iv. **Capacity Building:** Training facilitators to integrate disability-responsive practices into mainstream programmes.

Applied to early childhood education, these strategies reinforce the need for:

- i. Embedding UDL principles in preschool curricula.
- ii. Providing assistive devices (e.g., visual aids, communication boards).

iii. Ensuring classrooms are physically accessible and safe.

iv. Training teachers as 'inclusive facilitators' who adapt pedagogy to diverse needs.

Challenges Affecting Inclusive Early Childhood Education

Despite the recognised benefits of inclusion, numerous challenges continue to hinder the effective implementation of inclusive early childhood education, particularly in developing countries. Several studies have identified inadequate funding, insufficient infrastructure, shortages of specialised personnel, limited instructional resources, and negative societal attitudes as major obstacles to successful inclusion.

Akinrotimi and Olowe (2016) observed that many Nigerian schools lack the physical facilities and specialised resources necessary to accommodate children with disabilities. Inaccessible classrooms, inadequate learning materials, and poorly equipped learning environments often restrict meaningful participation by children with special needs.

Another significant challenge relates to the shortage of trained professionals capable of supporting inclusive practices. Many schools lack special educators, speech therapists, occupational therapists, and other support personnel required to address diverse learner needs effectively. Consequently, classroom teachers frequently bear the responsibility of meeting complex educational needs without adequate professional support.

Scandinavian research identifies ten recurring challenges for preschool staff, including communication support, monitoring inclusion, and reducing reliance on segregated therapy (Lundqvist, 2026). These resonate with Nigeria's weak monitoring and evaluation systems.

Technological limitations also present barriers to inclusion. Studies on educational technology in Nigeria indicate that many schools have limited access to assistive technologies and digital learning tools that could facilitate participation among children with disabilities. The absence of such resources reduces opportunities for individualised instruction and adaptive learning experiences.

In addition, societal misconceptions and negative attitudes towards disability continue to undermine inclusion efforts. Stigmatisation, discrimination, and cultural beliefs surrounding disability may discourage families from enrolling children in mainstream schools and may affect peer acceptance within classroom settings.

Research on instructional ecology in early childhood education further emphasises that successful inclusion requires supportive classroom environments characterised

by positive relationships, adaptive teaching practices, and collaborative learning opportunities. Where such conditions are lacking, children with special needs may experience exclusion despite being physically present in mainstream classrooms.

Overall, the literature suggests that while inclusive early childhood education offers substantial developmental, social, and educational benefits, its success depends on the availability of trained teachers, supportive policies, adequate resources, collaborative partnerships, and positive societal attitudes. Addressing these challenges remains essential for achieving equitable educational opportunities for all children.

Methodology

Research Design

This study adopted a descriptive survey research design. The design was considered appropriate because it enabled the researchers to obtain the opinions and experiences of teachers, parents, and caregivers regarding inclusive early childhood education and the integration of children with special needs into mainstream classrooms.

Area of the Study

The study was conducted in selected nursery schools within the Abuja Municipal Area Council (AMAC), Federal Capital Territory, Nigeria. The area was chosen because of its diverse educational institutions and growing commitment to inclusive educational practices.

Population of the Study

The population comprised 1,520 respondents, including preschool teachers, caregivers, and parents. These stakeholders were considered suitable participants because of their direct involvement in the education, care, and development of young children.

Sample and Sampling Technique

A sample of 360 respondents was selected using a stratified random sampling technique. This method ensured fair representation of the various stakeholder groups and enhanced the reliability of the findings.

Instrument for Data Collection

Data were collected using the **Inclusive Early Childhood Education Questionnaire (IECEQ)**. The instrument was designed to gather information on inclusive teaching practices, teacher preparedness, parental involvement, and challenges affecting the successful inclusion of children with special needs in mainstream preschool settings.

Reliability of the Instrument

The reliability of the instrument was determined using the Cronbach Alpha method. The analysis yielded a reliability coefficient of **0.89**, indicating a high level of internal consistency and confirming that the instrument was suitable for data collection.

Method of Data Analysis

Data collected were analysed using mean and standard deviation to answer the research questions. Pearson Product Moment Correlation and t-test statistics were employed to test the hypotheses at the 0.05 level of significance.

Results

This section presents the findings of the study based on the data collected and analysed. The results are organised according to the research questions and hypotheses to provide insight into best practices and challenges associated with the integration of children with special needs into mainstream early childhood education settings.

Table 1: Demographic Characteristics of Respondents

Variable	Frequency	Percentage
Male	144	40.0%
Female	216	60.0%
Teachers	210	58.3%
Parents/Caregivers	150	41.7%

Interpretation of Table 1

The results show that female respondents constituted the majority of the participants, accounting for 60.0% of the sample, while males represented 40.0%. The table further reveals that teachers formed the largest respondent group

(58.3%), followed by parents and caregivers (41.7%). This distribution indicates that the study benefited from substantial input from educational practitioners who are directly involved in implementing inclusive education practices.

Table 2: Influence of Differentiated Instruction on Inclusive Participation

Item	Mean	SD	Decision
Visual learning aids improve participation	3.82	0.61	Agree
Peer tutoring enhances social interaction	3.75	0.68	Agree
Flexible teaching strategies improve engagement	3.79	0.64	Agree
Multisensory activities support learning diversity	3.87	0.59	Agree
Grand Mean	3.81		Agree

Interpretation of Table 2

The findings indicate a strong agreement among respondents that differentiated instructional strategies enhance the participation of children with special needs in inclusive classrooms. The highest-rated item was

multisensory activities (Mean = 3.87), suggesting that engaging multiple senses during learning significantly supports diverse learners. The grand mean of 3.81 demonstrates that differentiated instruction is widely perceived as an effective approach for promoting inclusion and active classroom participation.

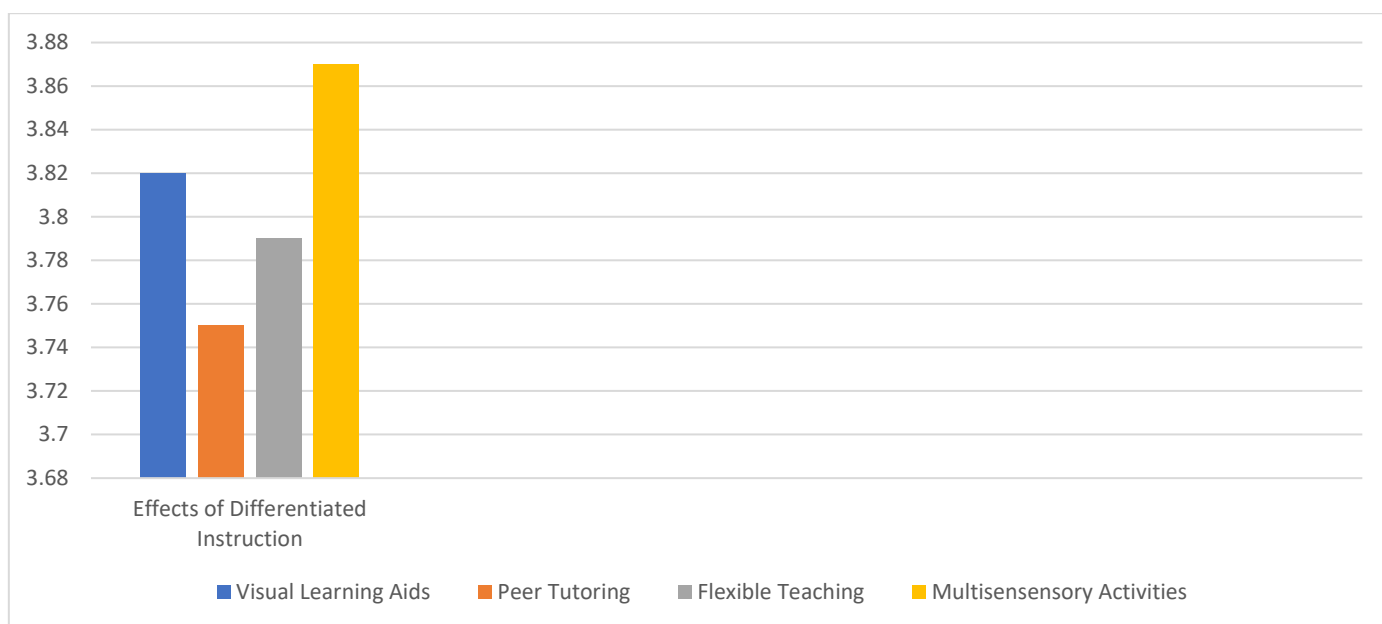


Chart 1: Effects of Differentiated Instruction

Interpretation of Chart 1

The chart visually confirms the positive influence of differentiated instructional practices on inclusive participation. Multisensory activities and visual learning

aids recorded the highest responses, indicating that learners benefit significantly from varied and engaging teaching methods. The chart highlights the importance of flexible instructional approaches in meeting the needs of children with diverse abilities.

Table 3: Effects of Teacher Preparedness on Inclusive Education

Item	Mean	SD	Decision
Teacher training improves classroom inclusion	3.91	0.55	Agree
Special education knowledge improves teaching effectiveness	3.86	0.60	Agree
Classroom management skills support inclusion	3.73	0.70	Agree
Knowledge of assistive technologies improves learning	3.68	0.73	Agree
Grand Mean	3.80		Agree

Interpretation of Table 3

The results reveal that teacher preparedness plays a crucial role in promoting inclusive education. Teacher training received the highest mean score (3.91), indicating that

respondents consider professional training essential for successful inclusion. The overall grand mean of 3.80 suggests that knowledge, skills, and competence among teachers significantly contribute to the effective integration of children with special needs.

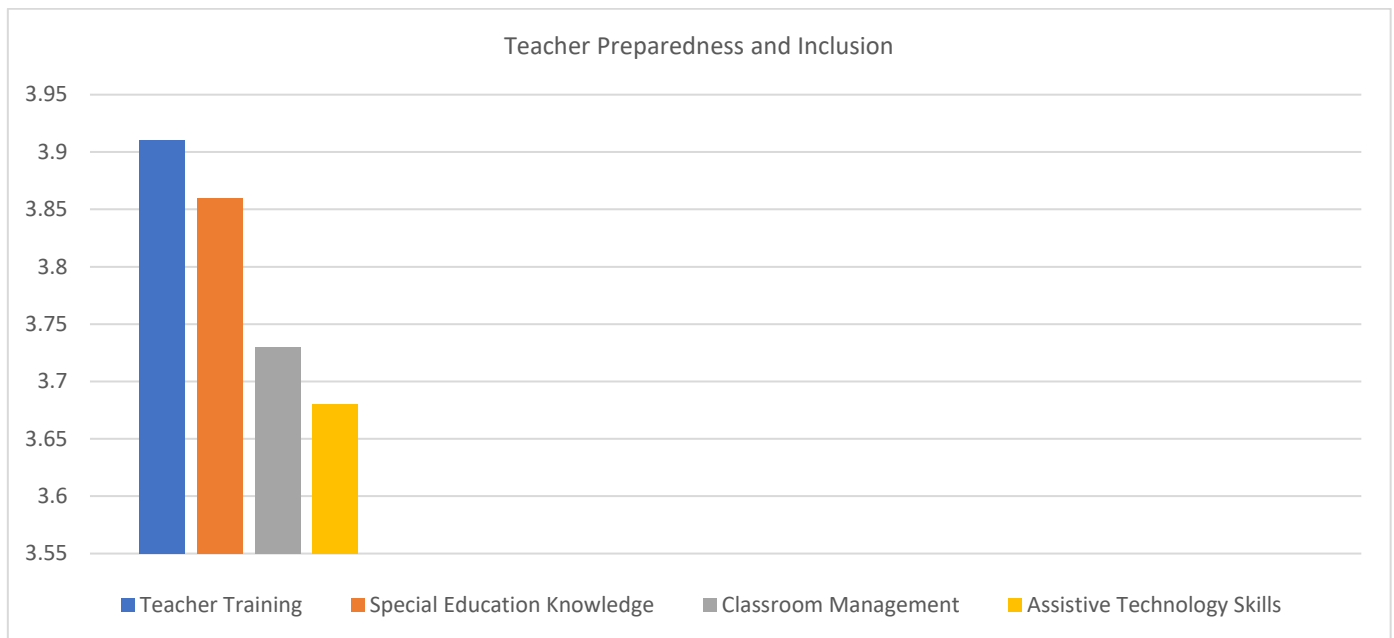


Chart 2: Teacher Preparedness and Inclusion

Interpretation of Chart 2

The chart illustrates that teacher training and special education knowledge are the most influential aspects of teacher preparedness. Although assistive technology skills

received slightly lower ratings, respondents still recognised their importance in supporting inclusive learning. Overall, the chart emphasises that well-prepared teachers are fundamental to the success of inclusive education programmes.

Table 4: Challenges Affecting Inclusive Early Childhood Education

Item	Mean	SD	Decision
Inadequate specialised teachers	3.94	0.54	Agree
Insufficient instructional materials	3.88	0.57	Agree
Overcrowded classrooms hinder inclusion	3.81	0.65	Agree
Negative societal attitudes affect inclusion	3.72	0.69	Agree
Grand Mean	3.84		Agree

Interpretation of Table 4

The findings identify several major barriers to the implementation of inclusive early childhood education. Inadequate specialised teachers emerged as the most significant challenge with a mean score of 3.94, followed

closely by insufficient instructional materials. The grand mean of 3.84 indicates strong agreement among respondents that resource limitations and structural challenges continue to hinder effective inclusion in Nigerian preschool settings.

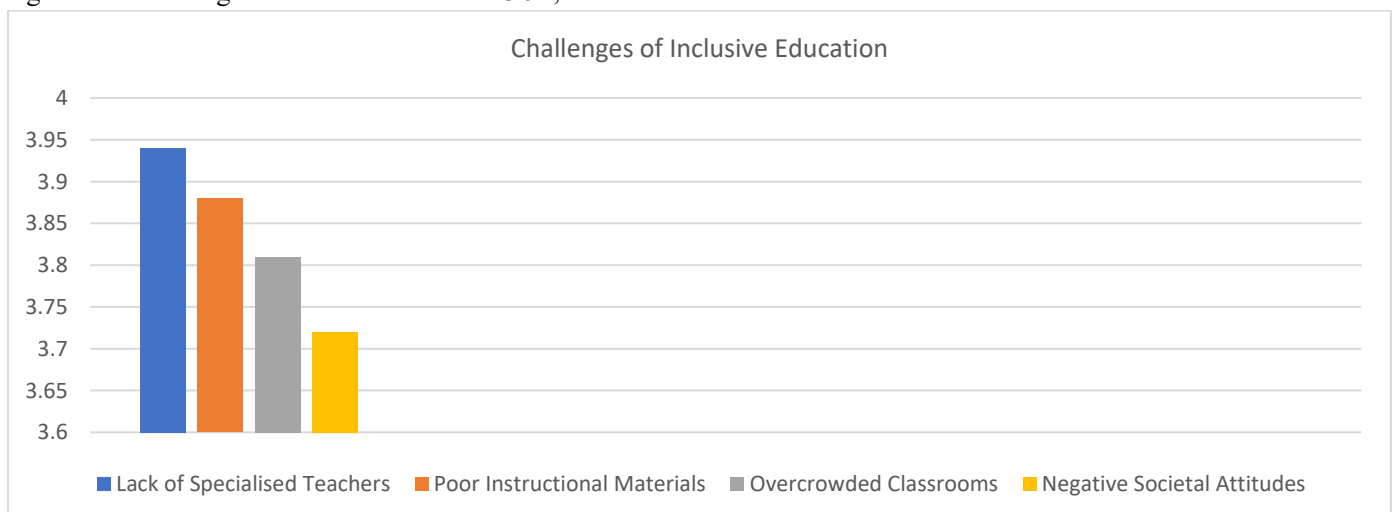


Chart 3: Challenges of Inclusive Education

Interpretation of Chart 3

The chart clearly demonstrates that shortages of specialised teachers and instructional resources are the most pressing challenges facing inclusive education. While societal attitudes recorded comparatively lower values, they remain a significant concern. The chart underscores the need for improved funding, teacher recruitment, and public awareness initiatives to strengthen inclusive educational practices.

Hypotheses Testing

Hypothesis One

Variables	N	r	p-value	Decision
Differentiated Instruction & Participation	360	0.76	0.001	Rejected

Interpretation

The analysis revealed a strong positive relationship between differentiated instruction and inclusive participation ($r = 0.76$). Since the p-value (0.001) is less than the 0.05 significance level, the null hypothesis was rejected. This implies that differentiated instructional practices significantly enhance the participation of children with special needs in mainstream early childhood classrooms.

Hypothesis Two

Variables	N	r	p-value	Decision
Teacher Preparedness & Inclusive Education	360	0.72	0.002	Rejected

Interpretation

The results showed a strong positive relationship between teacher preparedness and successful inclusive education ($r = 0.72$). The p-value of 0.002 is below the 0.05 threshold; therefore, the null hypothesis was rejected. This finding indicates that adequately trained and well-prepared teachers significantly contribute to the successful integration and support of children with special needs in inclusive preschool settings.

Discussion of Findings

The findings of this study revealed that differentiated instructional strategies significantly enhance the participation, communication, and engagement of children with special needs in mainstream early childhood classrooms. Respondents strongly agreed that the use of

visual learning aids, peer tutoring, flexible teaching approaches, and multisensory learning activities create opportunities for children with varying abilities to participate meaningfully in classroom activities. This finding suggests that when teachers adapt their instructional methods to accommodate diverse learning needs, children with special needs become more actively involved in learning and social interactions. Inclusive classrooms that employ differentiated instruction are better positioned to reduce learning barriers and promote equal educational opportunities for all learners. This finding is consistent with Florian and Beaton (2018), who argued that adaptive and flexible teaching approaches improve access to learning and foster educational equity among diverse groups of learners.

The study further established that teacher preparedness is a critical determinant of successful inclusive education implementation. The findings showed that teachers who possess knowledge of inclusive pedagogy, classroom management techniques, special education practices, and assistive technologies are more effective in supporting children with disabilities. Teacher training emerged as one of the strongest factors influencing successful inclusion, highlighting the importance of equipping educators with the competencies required to address diverse learning needs, Edinoh, Asemota & Wakili (2026). This result underscores the fact that inclusion is not merely about placing children with special needs in mainstream classrooms but ensuring that teachers are adequately prepared to facilitate their learning and development. The finding supports the studies of Sharma and Sokal (2016) and Ainscow (2020), which emphasised that teacher competence, confidence, and professional development are essential for creating effective and inclusive learning environments.

Another important finding of the study was the positive influence of parental involvement on children's adjustment, behaviour, and academic outcomes. The results indicate that collaboration between parents and teachers contributes significantly to the successful inclusion of children with special needs. Parents provide valuable insights into their children's strengths, challenges, and developmental needs, while teachers contribute professional expertise and educational support. When both parties work together, children receive more consistent guidance and support across home and school environments. This collaborative relationship enhances communication, promotes positive behavioural outcomes, and contributes to improved academic performance. The finding aligns with existing literature which emphasises that strong family-school partnerships are fundamental to children's educational success, particularly in inclusive settings.

Despite the numerous benefits associated with inclusive education, the study identified several significant challenges hindering its effective implementation in Nigerian early childhood education settings. Among the most prominent barriers were inadequate numbers of specialised teachers, insufficient instructional materials, overcrowded classrooms, and negative societal attitudes towards disability. The shortage of trained professionals limits schools' ability to provide individualised support for children with special needs, while inadequate resources constrain the use of adaptive teaching strategies and assistive technologies. Overcrowded classrooms further reduce teachers' capacity to give personalized attention to learners, making effective inclusion more difficult (Ogunode, Edinoh & Olatunde-Aiyedun 2023; Edinoh, Oche & Omolabake 2024).

The findings also revealed that societal misconceptions and stigma surrounding disability continues to affect the acceptance and participation of children with special needs in mainstream educational settings. Negative attitudes may discourage families from seeking educational opportunities for their children and may contribute to exclusionary practices within schools and communities. These findings corroborate previous Nigerian studies that identified inadequate funding, weak policy implementation, poor infrastructure, and social stigma as major obstacles to inclusive education (Awah et al. 2024).

Furthermore, the findings support research on instructional ecology and culturally responsive educational practices, which emphasise the importance of supportive, collaborative, and adaptive learning environments in promoting inclusion. Such environments encourage participation, foster positive peer relationships, and create opportunities for all children to thrive regardless of their abilities. Overall, the study demonstrates that successful inclusive early childhood education requires a combination of effective teaching practices, teacher competence, parental support, adequate resources, and positive societal attitudes.

Conclusion

This study examined best practices for integrating children with special needs into mainstream early childhood education settings in Nigeria. Based on the findings, it can be concluded that inclusive early childhood education serves as a powerful mechanism for promoting educational equity, social interaction, empathy, acceptance, and holistic child development. When implemented effectively, inclusive classrooms provide opportunities for children with special needs to learn, interact, and develop alongside their typically developing peers within supportive and nurturing environments. Inclusive early childhood education in Nigeria is both a pedagogical necessity and a

social justice imperative. By integrating differentiated instruction, teacher preparedness, parental involvement, and disability-inclusion strategies Nigeria can move toward equitable, sustainable, and holistic child development.

The study established that differentiated instructional strategies, collaborative learning experiences, teacher preparedness, parental involvement, and supportive classroom environments significantly enhance the participation, engagement, and academic success of children with special needs. These factors collectively contribute to the creation of learning environments where diversity is respected and every child is given the opportunity to reach his or her full potential.

However, the successful implementation of inclusive education in Nigeria continues to face substantial challenges, including inadequate specialised personnel, limited instructional resources, overcrowded classrooms, insufficient infrastructural support, and persistent societal stigma towards disability. Addressing these challenges requires coordinated efforts from government agencies, educational institutions, teachers, parents, and community stakeholders. Therefore, achieving effective inclusion will depend not only on policy formulation but also on sustained commitment to policy implementation, capacity building, resource provision, and public awareness initiatives.

Recommendations

Based on the findings and conclusions of this study, the following recommendations are made:

1. Government should strengthen teacher preparation programmes by providing regular pre-service and in-service training on inclusive early childhood education, special needs education, classroom adaptation, and assistive technology integration. Also embed the seven competency domains into teacher training curricula.
2. Schools should adopt differentiated instructional practices such as multisensory learning activities, visual supports, cooperative learning, and flexible teaching strategies to accommodate diverse learner needs.
3. Educational authorities should provide adequate assistive technologies and adaptive instructional materials to support the learning and participation of children with special needs in mainstream classrooms.
4. School administrators should promote stronger collaboration between parents and teachers through regular communication, joint educational planning, and active parental involvement in children's learning and development.
5. Government should increase funding for inclusive education programmes to improve infrastructure, recruit specialised personnel, and provide the

resources necessary for effective implementation.

6. Educational policymakers should strengthen monitoring and evaluation mechanisms to ensure the effective implementation of inclusive education policies across early childhood education centres. Structured assessment tools should be implemented by evaluators to track inclusion outcomes.
7. Class sizes should be reduced where possible to enable teachers to provide individualised attention and support for children with diverse learning needs.
8. Public awareness and sensitisation campaigns should be intensified to combat stigma, discrimination, and misconceptions surrounding disability and to promote positive attitudes toward inclusion within schools and communities.
9. Partnerships between government, non-governmental organisations, and educational institutions should be encouraged to support research, innovation, and resource mobilisation for inclusive education programmes.
10. Government should align ECCE inclusion with vocational and entrepreneurship inclusion strategies.
11. Further studies should be conducted in different regions of Nigeria to explore additional strategies for improving inclusive educational practices and addressing context-specific challenges affecting children with special needs.

These recommendations, if effectively implemented, will contribute significantly to strengthening inclusive early childhood education and ensuring that all children, regardless of their abilities or disabilities, have access to quality and equitable learning opportunities.

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