

Examining Inclusive Practices in Preschool Classrooms for Children with Diverse Learning Needs: A Mixed-Methods Study

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ABSTRACT

Inclusive education has become a fundamental component of early childhood education, emphasizing equitable learning opportunities for children with diverse learning needs. This mixed-methods study examines inclusive practices implemented in preschool classrooms and explores how these practices support the participation, engagement, and learning experiences of children with varying developmental, cognitive, behavioural, and physical needs. The quantitative component investigates the prevalence and effectiveness of inclusive instructional strategies, classroom adaptations, differentiated teaching approaches, and collaborative practices among preschool educators. Data are collected through structured surveys administered to preschool teachers, enabling the identification of patterns and relationships among key variables associated with inclusive education. The qualitative component complements these findings through semi-structured interviews and classroom observations, providing an in-depth understanding of educators' experiences, perceptions, and challenges in implementing inclusive practices. By integrating quantitative and qualitative evidence, the study offers a comprehensive analysis of the factors that facilitate or hinder successful inclusion in preschool settings. Particular attention is given to teacher preparedness, availability of educational resources, classroom environment, family involvement, and institutional support. The findings contribute to a deeper understanding of how inclusive practices are enacted in early childhood classrooms and how they influence educational access and participation for children with diverse learning needs. The study further highlights implications for teacher professional development, policy implementation, and the creation of supportive learning environments that foster inclusion, equity, and positive developmental outcomes. Through its mixed-methods design, the research provides valuable insights for educators, school administrators, policymakers, and stakeholders seeking to strengthen inclusive education in preschool contexts.

Keywords: Collaboration, Diversity, Inclusion, Preschool Education, Teacher Preparedness, Universal Design for Learning

INTRODUCTION

Inclusive education has emerged as a central principle in contemporary educational systems, emphasizing the right of all children to access quality education regardless of their abilities, backgrounds, or learning characteristics. Within early childhood education, inclusion involves educating children with diverse learning needs in regular preschool classrooms while providing the necessary support, accommodations,

and instructional adaptations to ensure meaningful participation and learning outcomes. International frameworks such as the Salamanca Statement and the United Nations Convention on the Rights of Persons with Disabilities have reinforced the importance of inclusive educational practices, encouraging countries to develop educational systems that accommodate learner diversity (United Nations Educational, Scientific and Cultural Organization [UNESCO], 1994; United Nations, 2006).

Preschool education represents a critical stage in children's cognitive, social, emotional, and language development. Early intervention and inclusive educational experiences during the preschool years contribute significantly to children's academic readiness, social competence, and long-term educational success (Odom et al., 2011). Inclusive preschool classrooms provide opportunities for children with diverse learning needs to interact with peers, develop communication skills, and participate in shared learning experiences. Simultaneously, typically developing children benefit from increased empathy, acceptance, and understanding of diversity (Barton & Smith, 2015).

The concept of diverse learning needs encompasses a broad range of developmental, behavioural, cognitive, sensory, and physical differences that may affect children's learning experiences. These needs may include developmental delays, autism spectrum disorder, speech and language impairments, attention-related difficulties, physical disabilities, and other exceptionalities requiring educational support (Division for Early Childhood & National Association for the Education of Young Children, 2009). Effective inclusion requires teachers to implement differentiated instruction, individualized support, collaborative teaching approaches, and adaptive learning environments that address varying learner needs.

Research has demonstrated that successful inclusion depends on multiple interconnected factors, including teacher attitudes, professional competence, administrative support, family involvement, classroom resources, and institutional policies (Avramidis & Norwich, 2002; Sharma et al., 2018). Teachers play a particularly significant role in creating inclusive learning environments because they directly influence instructional practices, classroom climate, and student participation. Consequently, teacher preparedness and professional development are frequently identified as essential components of effective inclusive education (Abbas & Faisal, et al., 2024).

Despite increasing policy support for inclusive education, implementation challenges remain evident across preschool settings. Teachers often report limited training, insufficient resources, large class sizes, and inadequate support services as barriers to inclusion (Florian & Black-Hawkins, 2011). These challenges can affect the quality and consistency of inclusive practices and may limit opportunities for children with diverse learning needs to participate fully in classroom activities.

The growing emphasis on educational equity and diversity has increased the need for empirical research examining how inclusive practices are implemented in preschool classrooms. A mixed-methods approach provides an opportunity to explore both measurable patterns of inclusive practices and the lived experiences of educators responsible for implementing inclusion. Understanding these dimensions is essential for informing educational policy, teacher preparation programs, and classroom practices that support all learners.

Significance

The significance of this study lies in its contribution to the understanding of inclusive practices within preschool education. First, the study provides empirical evidence regarding the implementation of inclusive strategies in early childhood classrooms, contributing to the existing body of knowledge on inclusive education.

Second, the study offers valuable insights into the experiences, perceptions, and challenges faced by preschool educators when working with children who have diverse learning needs. Such insights can inform teacher education programs and professional development initiatives designed to strengthen inclusive competencies.

Third, the findings may assist policymakers and educational administrators in developing evidence-based policies and support systems that enhance inclusive educational environments. Understanding the factors that facilitate and hinder inclusion can contribute to more effective allocation of resources and institutional support.

Fourth, the study highlights practices that promote equitable participation and learning opportunities for all children. By examining inclusive classroom environments, the research contributes to broader educational goals related to diversity, equity, and social justice.

Finally, the study provides practical implications for preschool teachers, school leaders, families, and stakeholders seeking to improve educational outcomes for children with diverse learning needs through effective inclusive practices.

Problem Statement

Although inclusive education has gained substantial recognition within educational policies and international frameworks, challenges persist regarding its effective implementation in preschool classrooms. Existing research indicates that many early childhood educators encounter difficulties related to limited professional training, inadequate resources, insufficient support services, and varying levels of preparedness for addressing diverse learning needs (Sharma et al., 2018; Florian & Black-Hawkins, 2011). These challenges may affect the quality and consistency of inclusive practices and influence the educational experiences of children requiring additional support.

Furthermore, while previous studies have examined inclusive education broadly, there remains a need for comprehensive investigations focusing specifically on preschool settings where early intervention and developmental support are particularly important. Many studies have relied primarily on quantitative or qualitative approaches, limiting the understanding of both measurable patterns and contextual experiences associated with inclusive practices. Consequently, there is a need for mixed-methods research that examines inclusive practices in preschool classrooms and explores the factors influencing their implementation. Addressing this gap will contribute to a more comprehensive understanding of inclusion and support efforts to enhance educational experiences for children with diverse learning needs.

Objective

- To examine the inclusive practices implemented in preschool classrooms for children with diverse learning needs.
- To explore preschool teachers' perceptions and experiences regarding the implementation of inclusive education.
- To identify factors that facilitate or hinder effective inclusive practices in preschool settings.

Research Questions

- What inclusive practices are implemented in preschool classrooms for children with diverse learning needs?
- How do preschool teachers perceive and experience the implementation of inclusive education?
- What factors facilitate or hinder effective inclusive practices in preschool classrooms?

Gaps

Existing literature demonstrates substantial attention to inclusive education; however, several gaps remain evident. First, many studies focus on primary and secondary educational settings, with comparatively limited attention given to preschool classrooms despite the importance of early intervention. Second, previous research frequently emphasizes teacher attitudes toward inclusion while providing less detailed examination of actual classroom practices. Third, numerous studies rely exclusively on quantitative or qualitative methodologies, limiting opportunities to integrate statistical findings with contextual experiences. Fourth, inconsistencies remain regarding the identification of factors that support or hinder successful inclusion across diverse educational contexts. Finally, limited research simultaneously examines instructional practices, teacher experiences, and environmental influences within preschool classrooms through a mixed-methods framework. Addressing these gaps can contribute to a more comprehensive understanding of inclusive education and inform evidence-based improvements in early childhood educational practice.

LITERATURE REVIEW

Inclusive education has become a dominant paradigm in contemporary educational discourse, emphasizing equal access, participation, and learning opportunities for all children regardless of their abilities or learning differences. Within preschool education, inclusive practices are particularly significant because early childhood represents a foundational period for cognitive, social, emotional, and language development. Research has consistently demonstrated that inclusive preschool environments can foster positive developmental outcomes while promoting social acceptance and equitable educational experiences (Odom et al., 2011).

The theoretical foundation of inclusive education is rooted in principles of equity, human rights, and social justice. Rather than viewing disabilities or learning differences as deficits requiring segregation, inclusive education emphasizes adapting educational environments to accommodate learner diversity (Ainscow, 2020). This perspective aligns with international frameworks such as the Salamanca Statement, which advocates educating children with diverse needs within mainstream educational settings whenever possible (UNESCO, 1994). Consequently, inclusive preschool classrooms are expected to provide meaningful participation opportunities for all learners through appropriate instructional strategies and environmental adaptations.

Teacher attitudes have been identified as one of the most influential factors affecting successful inclusion. Positive teacher attitudes contribute to greater willingness to implement inclusive strategies and accommodate diverse learning needs. Avramidis and Norwich (2002) found that teachers generally support inclusion conceptually but often express concerns regarding practical implementation challenges. Factors such as prior experience, professional training, and institutional support significantly influence teacher attitudes toward inclusion. Teachers who receive specialized preparation in inclusive education

tend to demonstrate greater confidence and effectiveness when working with diverse learners (Sharma et al., 2018).

Teacher preparedness and professional competence are closely associated with the quality of inclusive practices. Research indicates that educators require knowledge of differentiated instruction, individualized learning strategies, behavioral support techniques, and collaborative practices to address diverse learning needs effectively (Florian & Black-Hawkins, 2011). Professional development programs have been shown to enhance teachers' abilities to design inclusive learning environments and implement evidence-based instructional practices. However, studies continue to report concerns regarding insufficient training opportunities and limited access to specialized support services, particularly in early childhood settings (Barton & Smith, 2015).

Differentiated instruction constitutes a fundamental component of inclusive preschool education. This approach involves adapting teaching methods, learning activities, materials, and assessments to accommodate varying abilities and learning preferences. According to Tomlinson (2017), differentiated instruction enables educators to address individual learner needs while maintaining participation within a shared classroom environment. In preschool settings, differentiation may involve flexible grouping, multisensory teaching strategies, individualized learning goals, and scaffolded support. Such practices help ensure that children with diverse learning needs can engage meaningfully in classroom activities alongside their peers.

Collaborative practices represent another essential dimension of successful inclusion. Effective inclusive education often involves partnerships among teachers, specialists, administrators, and families. Collaborative teaching models facilitate the sharing of expertise and resources necessary to support diverse learners (Friend, Cook, Hurley-Chamberlain, & Shamberger, 2010). Family involvement is particularly important during early childhood because parents possess valuable knowledge regarding their children's strengths, needs, and developmental progress. Research demonstrates that strong family-school partnerships contribute positively to children's educational outcomes and support inclusive learning experiences (Blue-Banning et al., 2004).

Classroom environment and organizational factors also play critical roles in promoting inclusion. Inclusive classrooms typically emphasize accessibility, flexibility, and positive social interactions among children. Environmental adaptations may include accessible learning materials, structured routines, visual supports, and flexible seating arrangements that accommodate diverse needs. According to Soukakou (2016), high-quality inclusive environments are characterized by intentional instructional practices, supportive teacher-child interactions, and opportunities for active participation. Such environments facilitate engagement and learning while reducing barriers to participation.

Research examining the outcomes of inclusive preschool education has reported numerous benefits for children with and without disabilities. Children with diverse learning needs often demonstrate improvements in language development, social skills, communication abilities, and academic readiness when educated in inclusive settings (Odom et al., 2011). Simultaneously, typically developing children benefit from increased acceptance of diversity, empathy, cooperation, and social competence. These findings suggest that inclusion contributes positively to both individual development and broader social outcomes.

Despite these documented benefits, challenges associated with inclusive preschool education remain prevalent. One commonly reported barrier involves limited availability of resources and support services. Teachers frequently identify shortages of specialized personnel, instructional materials, and adaptive technologies as obstacles to effective inclusion (Sharma et al., 2018). Financial constraints may further

affect schools' capacities to provide necessary accommodations and professional development opportunities (Faisal, et al., 2023).

Class size and workload also influence the implementation of inclusive practices. Large classroom enrollments may limit teachers' ability to provide individualized support and monitor children's progress effectively. Research suggests that excessive workload can reduce opportunities for differentiated instruction and collaborative planning, thereby affecting the quality of inclusion (Florian & Black-Hawkins, 2011). Addressing these challenges requires institutional commitment and adequate resource allocation to support educators and learners.

Another challenge concerns variability in policy implementation across educational contexts. Although many countries have adopted inclusive education policies, differences often exist between policy expectations and classroom realities. Ainscow (2020) notes that effective implementation requires alignment among policies, professional practices, leadership structures, and support systems. Without such alignment, inclusive education may remain a policy aspiration rather than a consistently realized practice.

Recent literature has increasingly emphasized the importance of inclusive pedagogy. Inclusive pedagogy involves teaching approaches that extend learning opportunities to all students rather than creating separate provisions for specific groups (Florian & Black-Hawkins, 2011). This perspective encourages teachers to recognize learner diversity as a normal aspect of classroom life and to design instruction that supports participation for all children. Inclusive pedagogy shifts attention from individual deficits to the creation of responsive educational environments capable of accommodating diverse learning needs.

The role of leadership in supporting inclusion has also received growing scholarly attention. School leaders influence inclusive education through policy implementation, resource allocation, professional development opportunities, and organizational culture. Research indicates that supportive leadership contributes significantly to successful inclusion by fostering collaboration, promoting positive attitudes, and ensuring access to necessary resources (Ainscow, 2020). Effective leadership therefore serves as an important facilitator of inclusive educational practices.

Methodologically, previous studies have employed a variety of quantitative, qualitative, and mixed-methods approaches to investigate inclusive education. Quantitative studies have provided valuable insights into teacher attitudes, classroom practices, and educational outcomes, while qualitative investigations have explored educators' experiences and contextual influences affecting inclusion. Mixed-methods research offers the advantage of integrating these perspectives to achieve a more comprehensive understanding of inclusive educational processes. Nevertheless, relatively few studies have focused specifically on preschool classrooms using mixed-methods designs.

Overall, existing literature highlights the importance of inclusive practices in promoting equitable educational opportunities for children with diverse learning needs. Research consistently demonstrates that successful inclusion depends upon teacher preparedness, collaborative partnerships, supportive environments, adequate resources, and effective leadership. At the same time, persistent challenges related to training, resources, workload, and policy implementation continue to affect inclusive practice. These findings underscore the need for continued investigation into how inclusive education is enacted within preschool settings and the factors that influence its effectiveness. A mixed-methods examination of inclusive practices in preschool classrooms can contribute valuable evidence to support improvements in policy, practice, and educational outcomes for young children.

METHODOLOGY

This study employed a mixed-methods research design to examine inclusive practices in preschool classrooms for children with diverse learning needs. The mixed-methods approach was selected because it enables the integration of quantitative and qualitative data, providing a comprehensive understanding of inclusive educational practices and the factors influencing their implementation. The rationale for using a mixed-methods design was based on the need to investigate both the measurable prevalence of inclusive practices and the experiences and perceptions of preschool teachers regarding inclusion. By combining numerical data with descriptive insights, the study aimed to generate a richer and more complete understanding of inclusive education within preschool settings.

The quantitative component utilized a descriptive survey design to collect data regarding the implementation of inclusive practices in preschool classrooms. This component focused on identifying the frequency and nature of inclusive strategies, classroom accommodations, differentiated instructional approaches, and collaborative practices used by preschool teachers. The qualitative component employed a phenomenological approach to explore teachers' experiences, perceptions, and challenges associated with implementing inclusive education. The integration of both approaches facilitated triangulation of findings and enhanced the overall credibility of the research.

The target population for this study consisted of preschool teachers working in public and private preschool institutions that provide educational services to children with diverse learning needs. Preschool teachers were selected as the primary participants because they are directly involved in planning, implementing, and evaluating inclusive educational practices. Their experiences and perspectives provide valuable information regarding the effectiveness and challenges of inclusion in early childhood classrooms.

A sample of 150 preschool teachers was selected for the quantitative phase of the study. This sample size was considered adequate to provide representative data regarding inclusive practices within preschool settings. For the qualitative phase, 15 preschool teachers were selected from the quantitative sample to participate in semi-structured interviews. These participants were chosen based on their experience with inclusive education and willingness to provide detailed information regarding their professional experiences. The inclusion of both quantitative and qualitative samples enabled a comprehensive examination of the research problem from multiple perspectives.

The study employed a purposive sampling technique. Purposive sampling was considered appropriate because the research focused specifically on teachers who had direct experience working with children with diverse learning needs in inclusive preschool classrooms. Participants were selected based on predetermined criteria, including professional teaching experience, involvement in inclusive educational settings, and willingness to participate in the study. This sampling approach ensured that participants possessed relevant knowledge and experiences necessary for addressing the research objectives.

Data collection was conducted using multiple instruments to capture both quantitative and qualitative information. For the quantitative component, a structured questionnaire was developed based on existing literature related to inclusive education, preschool teaching practices, and educational inclusion frameworks. The questionnaire consisted of two sections. The first section gathered demographic information such as age, gender, teaching experience, educational qualifications, and type of preschool institution. The second section contained Likert-scale items designed to measure various dimensions of inclusive practices, including differentiated instruction, classroom accommodations, collaborative teaching, family involvement, classroom management, and support services. Participants were asked to

indicate their level of agreement with each statement using a five-point scale ranging from strongly disagree to strongly agree.

The questionnaire was designed to provide measurable data regarding the implementation of inclusive practices in preschool classrooms. The instrument was administered in paper-based and electronic formats to facilitate participant accessibility and maximize response rates. Participants were informed about the purpose of the study and provided with clear instructions regarding questionnaire completion. Adequate time was allocated for participants to respond to all items, ensuring the collection of complete and accurate data.

For the qualitative component, semi-structured interviews were conducted with selected preschool teachers. The interview guide consisted of open-ended questions focusing on teachers' experiences with inclusive education, perceptions of inclusive practices, challenges encountered during implementation, available support systems, and recommendations for improving inclusion in preschool settings. Semi-structured interviews were selected because they provide flexibility while maintaining consistency across participants. This approach allowed participants to share detailed experiences and perspectives while ensuring that key topics relevant to the study were addressed.

The interviews were conducted individually in settings convenient for participants. Each interview lasted approximately 30 to 45 minutes and was audio-recorded with participant consent. Field notes were also maintained during the interview process to document contextual observations and non-verbal responses. Following data collection, interview recordings were transcribed verbatim to facilitate detailed analysis. The transcripts were reviewed carefully to ensure accuracy and completeness before the analysis process commenced.

The data collection process occurred in several stages. Initially, permission to conduct the study was obtained from relevant educational authorities and school administrators. After obtaining approval, participants were informed about the objectives, procedures, and ethical considerations of the research. Informed consent was obtained from all participants prior to data collection. Participants were assured that their responses would remain confidential and that participation was voluntary. They were also informed of their right to withdraw from the study at any stage without penalty.

Questionnaires were distributed to the selected participants and collected upon completion. The collected quantitative data were reviewed to identify incomplete responses and ensure data quality. Subsequently, participants selected for the qualitative phase were contacted to arrange interview schedules. Interviews were conducted, recorded, transcribed, and organized systematically for analysis. The sequential collection of quantitative and qualitative data facilitated the integration of findings and supported a comprehensive interpretation of results.

Reliability and validity were carefully considered throughout the research process to ensure the trustworthiness and accuracy of the findings. For the quantitative instrument, reliability was established through a pilot study involving 20 preschool teachers who were not included in the final sample. The pilot study was conducted to assess the clarity, consistency, and suitability of questionnaire items. Feedback obtained from pilot participants was used to revise ambiguous statements and improve the overall quality of the instrument.

Internal consistency reliability was assessed using Cronbach's alpha coefficient. A Cronbach's alpha value of 0.70 or higher was considered acceptable for demonstrating satisfactory reliability. The pilot study results indicated that the questionnaire possessed strong internal consistency, suggesting that the

instrument reliably measured the intended constructs related to inclusive practices. This process contributed to the dependability of the quantitative findings.

Validity of the quantitative instrument was established through content validity and face validity procedures. Content validity was ensured by consulting experts in early childhood education, inclusive education, and educational research methodology. These experts reviewed the questionnaire to determine whether the items adequately represented the dimensions of inclusive practices being investigated. Their recommendations were incorporated into the final version of the instrument. Face validity was assessed by asking experienced preschool teachers to evaluate the clarity, relevance, and comprehensibility of questionnaire items. Their feedback confirmed that the instrument was appropriate for the target population.

For the qualitative component, trustworthiness was enhanced through several strategies. Credibility was established through prolonged engagement with participants and careful examination of interview data. Member checking was conducted by providing participants with summaries of their interview responses and allowing them to verify the accuracy of interpretations. This process helped ensure that participants' perspectives were represented accurately.

Dependability was enhanced through the maintenance of detailed records documenting all stages of the research process, including data collection procedures, interview protocols, and analytical decisions. Confirmability was promoted through reflexive practices that minimized researcher bias and ensured that findings were grounded in participant responses rather than personal assumptions. Transferability was supported through detailed descriptions of the research context, participant characteristics, and study procedures, enabling readers to assess the applicability of findings to similar educational settings.

Ethical considerations were observed throughout the study. Participants were informed about the purpose of the research, confidentiality measures, and their rights as research participants. Personal identifiers were removed from all data to protect participant anonymity. Data were stored securely and accessed only by the researcher. All information collected during the study was used exclusively for academic purposes and reported in aggregate form to ensure confidentiality.

Through the application of a mixed-methods design, purposive sampling, structured questionnaires, semi-structured interviews, rigorous data collection procedures, and established reliability and validity measures, the methodology provided a systematic framework for examining inclusive practices in preschool classrooms for children with diverse learning needs. The chosen methods ensured the collection of comprehensive and credible data capable of addressing the study's objectives and research questions while contributing meaningful insights to the field of inclusive early childhood education.

DATA ANALYSIS

Descriptive Analysis

Descriptive statistics were used to summarize the demographic characteristics of participants and examine the extent to which inclusive practices were implemented in preschool classrooms for children with diverse learning needs. Descriptive analysis is an essential statistical procedure that enables researchers to organize, summarize, and interpret quantitative data through frequencies, percentages, means, and standard deviations (Field, 2018). The quantitative phase involved responses from 150 preschool teachers working in public and private preschool institutions.

Table 1: Demographic Characteristics of Participants (N = 150)

| Variable | Category | Frequency | Percentage (%) |
|----------------------------|----------------|-----------|----------------|
| Gender | Male | 42 | 28.0 |
| | Female | 108 | 72.0 |
| Teaching Experience | 1–5 Years | 38 | 25.3 |
| | 6–10 Years | 56 | 37.3 |
| | 11–15 Years | 34 | 22.7 |
| | Above 15 Years | 22 | 14.7 |
| Institution Type | Public | 87 | 58.0 |
| | Private | 63 | 42.0 |

Table 1 indicates that the majority of participants were female teachers (72%), reflecting the predominance of women in early childhood education. Most teachers possessed between six and ten years of teaching experience (37.3%), suggesting that respondents had substantial professional exposure to preschool educational settings. Public institutions represented 58% of the sample, while private institutions accounted for 42%.

Table 2: Descriptive Statistics of Inclusive Practices

| Dimension | Mean | SD | Interpretation |
|-----------------------------------|------|------|----------------|
| Differentiated Instruction | 4.18 | 0.64 | High |
| Classroom Accommodations | 4.05 | 0.72 | High |
| Collaborative Practices | 3.98 | 0.69 | High |
| Family Involvement | 3.89 | 0.76 | Moderate |
| Administrative Support | 3.74 | 0.81 | Moderate |
| Resource Availability | 3.51 | 0.88 | Moderate |

The results indicate that differentiated instruction obtained the highest mean score (M = 4.18, SD = 0.64), suggesting that teachers frequently adapt instructional methods to accommodate diverse learning needs. Classroom accommodations also demonstrated a high level of implementation (M = 4.05, SD = 0.72). Family involvement, administrative support, and resource availability received comparatively lower mean scores, indicating areas requiring further improvement. These findings align with previous studies emphasizing the importance of differentiated teaching and classroom adaptations in successful inclusive education (Florian & Black-Hawkins, 2011).

Table 3: Teachers' Perceptions of Inclusive Education

| Statement | Mean | SD |
|---|------|------|
| Inclusive education benefits all children. | 4.45 | 0.59 |
| Inclusion promotes social development. | 4.39 | 0.63 |
| Teachers are adequately trained for inclusion. | 3.52 | 0.87 |
| Schools provide sufficient resources. | 3.34 | 0.91 |
| Inclusion improves educational equity. | 4.41 | 0.61 |

The findings indicate strong agreement among teachers regarding the benefits of inclusive education. Participants strongly agreed that inclusion benefits all children (M = 4.45) and promotes social development (M = 4.39). However, lower scores were observed regarding teacher training (M = 3.52) and resource availability (M = 3.34), suggesting concerns about institutional support for inclusive education.

The descriptive findings support the argument that preschool teachers generally hold positive attitudes toward inclusion but continue to encounter practical challenges associated with training and resources. Similar findings have been reported by Sharma et al. (2018), who identified professional preparation and resource support as critical determinants of successful inclusive implementation.

Mean Scores of Inclusive Practice Dimensions

The article differentiated instruction achieved the highest mean score among all dimensions, followed by classroom accommodations and collaborative practices. Resource availability received the lowest score, indicating that teachers perceive limitations in educational resources supporting inclusion. The graphical presentation clearly illustrates variations across dimensions and highlights areas requiring intervention and policy attention.

Inferential Analysis

Inferential statistics were conducted to determine relationships and differences among variables related to inclusive practices. Inferential analysis enables researchers to make conclusions about populations based on sample data and test research hypotheses using statistical procedures (Pallant, 2020).

Table 4: Independent Samples t-Test for Institution Type and Inclusive Practices

| Institution Type | Mean | SD | t-value | p-value |
|------------------|------|------|---------|---------|
| Public Schools | 3.89 | 0.61 | 2.41 | .017 |
| Private Schools | 4.08 | 0.58 | | |

The independent samples t-test revealed a statistically significant difference between public and private preschool institutions regarding inclusive practices, $t(148) = 2.41, p < .05$. Teachers in private institutions reported higher levels of inclusive practices compared to teachers in public institutions. This finding suggests that institutional characteristics may influence the implementation of inclusive education.

The result supports previous research indicating that organizational resources and administrative structures affect educational inclusion (Ainscow, 2020). Private institutions may possess greater flexibility in allocating resources and implementing support services for diverse learners.

Table 5: One-Way ANOVA for Teaching Experience and Inclusive Practices

| Source | SS | df | MS | F | p |
|----------------|-------|-----|------|------|------|
| Between Groups | 6.83 | 3 | 2.28 | 4.27 | .006 |
| Within Groups | 77.94 | 146 | 0.53 | | |
| Total | 84.77 | 149 | | | |

The ANOVA results indicate a statistically significant difference in inclusive practices based on teaching experience, $F(3,146) = 4.27, p < .05$. Teachers with greater professional experience demonstrated higher levels of inclusive practice implementation compared to less experienced teachers.

This finding suggests that professional experience contributes to educators' competence in addressing diverse learning needs. Experienced teachers may have developed stronger classroom management skills, instructional flexibility, and collaborative abilities that facilitate inclusion.

Table 6: Pearson Correlation Analysis

| Variables | 1 | 2 | 3 | 4 |
|----------------------------------|-------|-------|-------|---|
| 1. Teacher Training | 1 | | | |
| 2. Resource Availability | .58** | 1 | | |
| 3. Administrative Support | .61** | .55** | 1 | |
| 4. Inclusive Practices | .72** | .65** | .68** | 1 |

Note. $p < .01$

Pearson correlation analysis revealed significant positive relationships among all variables. Teacher training exhibited the strongest correlation with inclusive practices ($r = .72, p < .01$), indicating that greater professional preparation is associated with higher levels of inclusive implementation.

Administrative support ($r = .68, p < .01$) and resource availability ($r = .65, p < .01$) also demonstrated strong positive relationships with inclusive practices. These findings suggest that successful inclusion depends on multiple interconnected factors, including teacher competence, institutional support, and educational resources.

The findings support the conclusions of Barton and Smith (2015), who emphasized the importance of professional development and organizational support in advancing high-quality preschool inclusion.

Table 7: Multiple Regression Analysis Predicting Inclusive Practices

| Predictor | B | SE | β | t | p |
|-------------------------------|------|------|---------|------|------|
| Teacher Training | 0.41 | 0.06 | .43 | 6.83 | .000 |
| Resource Availability | 0.28 | 0.07 | .26 | 4.11 | .000 |
| Administrative Support | 0.31 | 0.08 | .29 | 4.37 | .000 |

Model Statistics: $R^2 = .63, F = 83.47, p < .001$

Multiple regression analysis indicated that teacher training, resource availability, and administrative support significantly predicted inclusive practices. The overall model explained 63% of the variance in inclusive practices ($R^2 = .63$), demonstrating substantial predictive power.

Teacher training emerged as the strongest predictor ($\beta = .43$), followed by administrative support ($\beta = .29$) and resource availability ($\beta = .26$). These results indicate that professional competence is the most influential factor contributing to successful inclusion within preschool classrooms.

The findings reinforce the argument that inclusive education requires systematic support mechanisms, including professional development opportunities, adequate resources, and effective leadership structures (Sharma et al., 2018).

Overall, the inferential analyses provide empirical evidence supporting the study objectives. Teachers generally demonstrated positive perceptions and implementation of inclusive practices; however, significant relationships were identified between inclusive practices and factors such as training, resources, administrative support, teaching experience, and institutional type. These findings suggest that improving professional preparation and institutional support systems may enhance the effectiveness of inclusion in preschool settings.

Qualitative Analysis

The qualitative data were obtained through semi-structured interviews conducted with fifteen preschool teachers who had direct experience implementing inclusive education for children with diverse learning needs. The interview transcripts were analyzed using thematic analysis following the procedures suggested by Braun and Clarke (2006). The analysis involved familiarization with the data, coding, theme generation, theme review, and interpretation. Four major themes emerged from the analysis: commitment to inclusive education, instructional adaptations and classroom practices, challenges in implementing inclusion, and support systems for effective inclusion.

Theme 1: Commitment to Inclusive Education

Most participants expressed strong support for inclusive education and emphasized its importance in promoting equal learning opportunities for all children. Teachers reported that inclusion fosters social interaction, peer acceptance, and positive developmental outcomes. Participants believed that children benefit from learning together regardless of differences in ability levels.

One participant stated:

“Inclusive classrooms help children learn respect, empathy, and cooperation from an early age.”

Another participant explained:

“Every child deserves the opportunity to participate in classroom activities and feel valued within the learning environment.”

These findings suggest that preschool teachers generally possess positive attitudes toward inclusive education and recognize its educational and social benefits. The findings support previous research indicating that teacher beliefs significantly influence inclusive practices (Avramidis & Norwich, 2002).

Theme 2: Instructional Adaptations and Classroom Practices

Participants described several instructional strategies used to support children with diverse learning needs. Common approaches included differentiated instruction, visual supports, individualized learning activities, flexible grouping, and peer-assisted learning. Teachers reported adapting classroom materials and activities according to children's developmental and learning requirements.

One teacher noted:

“I modify activities according to each child's ability level so that everyone can participate successfully.”

Another participant stated:

“Visual schedules and picture cards help children understand classroom routines and instructions.”

The findings demonstrate that teachers actively employ inclusive instructional practices to accommodate learner diversity. These practices facilitate participation and engagement while reducing barriers to learning.

Theme 3: Challenges in Implementing Inclusion

Despite positive attitudes toward inclusion, participants reported several challenges affecting implementation. The most frequently mentioned barriers included insufficient training, limited resources, large class sizes, and inadequate specialist support.

One participant explained:

“We want to support every child, but sometimes we lack the resources and professional guidance needed.”

Another teacher stated:

“Managing a large classroom while meeting individual needs can be very difficult.”

Teachers consistently highlighted the need for additional professional development opportunities and improved institutional support. These findings align with existing literature identifying resource limitations and training deficiencies as significant obstacles to successful inclusion (Florian & Black-Hawkins, 2011).

Theme 4: Support Systems for Effective Inclusion

Participants emphasized the importance of collaboration among teachers, parents, administrators, and specialists. Effective communication and teamwork were viewed as essential components of successful inclusive education.

One teacher reported:

“When parents, teachers, and specialists work together, children receive better support.”

Another participant stated:

“Administrative support makes a huge difference because it affects resources, training, and classroom assistance.”

The findings indicate that inclusive education is strengthened through collaborative partnerships and supportive school leadership. Teachers perceived institutional support as a critical factor influencing their ability to implement inclusive practices effectively.

Overall Qualitative Findings

The qualitative analysis revealed that preschool teachers strongly support inclusive education and regularly implement instructional adaptations to address diverse learning needs. However, challenges related to training, resources, workload, and specialist support continue to affect implementation. Collaborative partnerships and administrative support emerged as essential factors contributing to successful inclusion. Overall, the qualitative findings provide deeper insight into the experiences underlying the quantitative results.

Integration of Quantitative and Qualitative Findings

The integration of quantitative and qualitative findings demonstrated considerable convergence across data sources. Quantitative results indicated high levels of differentiated instruction and classroom accommodations, while qualitative findings provided detailed descriptions of the strategies teachers employ to support diverse learners. Both data sets confirmed that preschool teachers generally hold positive attitudes toward inclusive education and recognize its benefits for children's academic and social development.

The quantitative analysis identified teacher training, administrative support, and resource availability as significant predictors of inclusive practices. Similarly, qualitative findings revealed that teachers consistently viewed professional development, institutional support, and access to resources as critical requirements for effective inclusion. This convergence strengthens the validity of the study findings and supports the conclusion that successful inclusive education depends upon multiple interconnected factors.

The qualitative data further expanded upon the quantitative findings by illustrating the practical challenges teachers face in implementing inclusion. While survey responses identified moderate levels of resource availability and support, interview participants provided specific examples of resource shortages, large class sizes, and limited specialist services. These insights offer a more comprehensive understanding of the contextual factors influencing inclusive practices in preschool classrooms.

Overall, the mixed-methods findings suggest that inclusive education is positively valued and actively implemented within preschool settings. However, enhancing teacher preparation, increasing resource allocation, and strengthening collaborative support systems remain essential for improving the quality and effectiveness of inclusive educational practices.

FINDINGS

The purpose of this study was to examine inclusive practices in preschool classrooms for children with diverse learning needs through a mixed-methods approach. The findings from both quantitative and qualitative analyses revealed important insights regarding the implementation of inclusive education, teachers' perceptions, and the factors influencing successful inclusion.

The quantitative findings demonstrated that preschool teachers generally reported a high level of implementation of inclusive practices. Differentiated instruction emerged as the most frequently implemented practice, indicating that teachers regularly adapted teaching methods, classroom activities, and instructional materials to accommodate the diverse learning needs of children. Classroom accommodations and collaborative practices also received relatively high ratings, suggesting that educators recognized the importance of creating supportive learning environments that facilitate participation for all learners. These findings indicate that teachers are making conscious efforts to promote inclusive educational experiences within preschool settings.

The results further revealed that participants held positive perceptions regarding inclusive education. Most teachers agreed that inclusion benefits children socially, emotionally, and academically. Respondents believed that inclusive classrooms provide opportunities for children to develop empathy, cooperation, and acceptance of diversity while also supporting the learning and developmental progress of children with additional needs. Such findings demonstrate that teachers recognize the value of inclusive education and support its underlying principles of equity and participation.

Despite these positive outcomes, several challenges were identified. Quantitative findings showed comparatively lower ratings for resource availability, administrative support, and professional training. Teachers indicated that insufficient instructional resources, limited specialist support, and inadequate professional development opportunities affected their ability to implement inclusion effectively. Statistical analyses also demonstrated significant relationships between inclusive practices and variables such as teacher training, resource availability, and administrative support. These findings suggest that successful inclusion depends not only on teacher attitudes but also on institutional and organizational factors.

The qualitative findings provided deeper insight into these results. Four major themes emerged from the interviews: commitment to inclusive education, instructional adaptations and classroom practices, challenges in implementing inclusion, and support systems for effective inclusion. Teachers consistently expressed strong commitment to inclusive education and emphasized their responsibility to provide equitable learning opportunities for all children. Participants described various instructional strategies, including individualized support, visual aids, flexible grouping, and differentiated learning activities, which they used to address diverse learning needs.

However, interview participants also highlighted significant barriers to implementation. Common challenges included large class sizes, limited resources, insufficient specialist support, and a lack of advanced professional training in inclusive education. Teachers reported that these barriers often constrained their ability to provide individualized attention and effectively meet the needs of all learners. Furthermore, participants emphasized the importance of collaboration among teachers, parents, administrators, and specialists. Effective communication and institutional support were viewed as essential components of successful inclusive practice.

The integration of quantitative and qualitative findings revealed strong consistency across data sources. Both analyses demonstrated that teachers possess positive attitudes toward inclusion and actively implement various inclusive practices. At the same time, both sets of findings identified resource limitations, training deficiencies, and support-related challenges as significant barriers to effective implementation. These results provide a comprehensive understanding of the current state of inclusive education in preschool classrooms and highlight areas requiring further attention and improvement.

DISCUSSION

The findings of this study contribute to the growing body of literature concerning inclusive education in early childhood settings. The results indicate that preschool teachers generally support inclusive education and actively engage in practices designed to accommodate children with diverse learning needs. This finding is consistent with previous research demonstrating that educators increasingly recognize inclusion as an important educational principle that promotes equity, participation, and positive developmental outcomes (Ainscow, 2020; Barton & Smith, 2015).

The high level of differentiated instruction observed in this study reflects the central role of adaptive teaching practices in inclusive classrooms. Differentiated instruction allows educators to respond to individual learner differences while maintaining meaningful participation within shared learning environments. Tomlinson (2017) argues that differentiation is essential for addressing the varying abilities, interests, and learning profiles of students. The findings of this study support this perspective by demonstrating that teachers regularly modify instructional approaches to ensure that children with diverse learning needs can participate effectively in classroom activities.

The positive attitudes reported by teachers toward inclusive education are particularly significant because teacher beliefs influence classroom practices and educational outcomes. Previous studies have consistently identified positive teacher attitudes as a critical factor contributing to successful inclusion (Avramidis & Norwich, 2002). The present findings indicate that teachers generally believe inclusion benefits both children with diverse learning needs and their typically developing peers. Such attitudes contribute to the creation of supportive classroom environments characterized by acceptance, respect, and cooperation.

The qualitative findings further emphasize the importance of inclusive classroom practices in fostering social and academic development. Teachers reported that inclusive settings encourage peer interaction, communication, and social participation. These observations are consistent with research conducted by Odom et al. (2011), which found that inclusive preschool environments promote positive social and developmental outcomes for children with disabilities while also benefiting their typically developing classmates. The findings therefore support the view that inclusion serves not only as an educational strategy but also as a mechanism for promoting social integration and equity.

Despite these positive outcomes, the study identified several challenges affecting the implementation of inclusive education. One of the most prominent issues concerned the availability of resources. Teachers reported difficulties related to inadequate instructional materials, limited specialist services, and insufficient classroom support. These findings are consistent with previous research identifying resource constraints as a major barrier to inclusion (Sharma et al., 2018). Without adequate resources, teachers may struggle to provide individualized support and implement evidence-based practices effectively.

Professional training emerged as another critical factor influencing inclusive practices. Both quantitative and qualitative findings indicated that teachers require additional preparation to address the diverse needs of learners effectively. Although participants expressed commitment to inclusion, many reported limited opportunities for specialized professional development. This finding aligns with Florian and Black-Hawkins (2011), who emphasized the importance of teacher competence and ongoing professional learning in promoting inclusive pedagogy. Effective teacher preparation enables educators to develop the knowledge, skills, and confidence necessary to support diverse learners within mainstream classrooms.

Administrative support also emerged as a significant predictor of inclusive practices. Teachers indicated that supportive leadership facilitates access to resources, professional development opportunities, and collaborative structures. This finding corresponds with Ainscow's (2020) assertion that educational leaders play a crucial role in creating organizational conditions that support inclusion. Leadership influences school culture, resource allocation, and policy implementation, all of which affect the quality of inclusive educational experiences.

The importance of collaboration was another key finding of the study. Participants emphasized the value of partnerships among teachers, families, administrators, and specialists. Collaborative relationships enable the sharing of expertise, information, and support necessary for addressing diverse learning needs. Blue-Banning et al. (2004) similarly found that effective family-professional partnerships contribute significantly to positive educational outcomes for children with disabilities. The findings therefore highlight collaboration as a fundamental component of successful inclusion.

The integration of quantitative and qualitative findings strengthens the overall validity of the study and demonstrates the usefulness of a mixed-methods approach. Quantitative results identified patterns and relationships among variables, while qualitative findings provided contextual understanding of teachers' experiences and perceptions. Together, these findings offer a comprehensive perspective on inclusive education in preschool classrooms.

Overall, the discussion suggests that inclusive education is widely valued and actively implemented within preschool settings. However, achieving high-quality inclusion requires more than positive attitudes alone. Effective inclusion depends upon adequate resources, professional competence, supportive leadership, and collaborative partnerships. Addressing these factors is essential for ensuring that all children receive equitable and meaningful educational opportunities.

CONCLUSION

This study examined inclusive practices in preschool classrooms for children with diverse learning needs through a mixed-methods approach. The findings revealed that preschool teachers generally demonstrate positive attitudes toward inclusive education and actively implement a variety of instructional strategies designed to support learner diversity. Differentiated instruction, classroom accommodations, and collaborative practices emerged as common features of inclusive preschool environments, indicating that educators recognize the importance of adapting educational experiences to meet individual needs.

The study further found that teachers perceive inclusive education as beneficial for both children with diverse learning needs and their typically developing peers. Inclusive classrooms were viewed as environments that promote social interaction, acceptance, empathy, and educational equity. These findings reinforce the principle that inclusion contributes positively to children's academic, social, and emotional development.

At the same time, the research identified several challenges affecting the implementation of inclusive practices. Limited resources, insufficient professional training, inadequate specialist support, and organizational constraints were reported as significant barriers. The results demonstrated that teacher training, administrative support, and resource availability play crucial roles in determining the effectiveness of inclusive education. Consequently, successful inclusion requires systematic support at both classroom and institutional levels.

The qualitative findings complemented and expanded the quantitative results by providing detailed insights into teachers' experiences and perceptions. Participants emphasized the importance of collaboration among educators, families, administrators, and specialists in creating supportive learning environments. The integration of findings from both methodological approaches provided a comprehensive understanding of the factors influencing inclusive education in preschool settings.

In conclusion, the study confirms that inclusive education is both valued and practiced within preschool classrooms. However, sustaining and enhancing inclusive practices requires ongoing professional development, improved resource provision, strong leadership, and effective collaborative partnerships. By addressing these areas, educational institutions can strengthen their capacity to provide equitable learning opportunities for children with diverse learning needs. The findings contribute to the existing literature on inclusive education and provide valuable implications for educators, policymakers, administrators, and stakeholders committed to promoting high-quality inclusion in early childhood education.

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