

**UNIVERSITY OF EDUCATION, WINNEBA**

**TEACHERS' INCLUSIVE EDUCATION PRACTICES IN EARLY  
CHILDHOOD CENTRES IN THE TAMALE METROPOLIS**

**ZUBEIDA ABDUL-MUMEEN**

**MASTER OF PHILOSOPHY**

**2024**

**UNIVERSITY OF EDUCATION, WINNEBA**



**TEACHERS' INCLUSIVE EDUCATION PRACTICES IN EARLY  
CHILDHOOD CENTRES IN THE TAMALE METROPOLIS**

**ZUBEIDA ABDUL-MUMEEN  
(8241900043)**

**A thesis submitted to the School of Graduate Studies in  
partial fulfilment of the requirements for the award of  
the degree of Master of Philosophy  
(Early Childhood Education)**

**DEPARTMENT OF EARLY CHILDHOOD EDUCATION  
FACULTY OF APPLIED BEHAVIOURAL SCIENCES IN EDUCATION  
UNIVERSITY OF EDUCATION, WINNEBA**

**DECEMBER, 2024**

All material contained within the thesis, including without limitation text, logos, icons, photographs and all other artwork, unless otherwise stated, is copyright material of University of Education, Winneba. Use may be made of any material contained within the thesis for non-commercial purposes from the copyright holder. Commercial use of material may only be made with the express, prior, written permission of University of Education, Winneba.

Copyright © University of Education, Winneba

## DECLARATION

### Student's Declaration

I, Zubeida Abdul-Mumeen, declare that this thesis is a result of my original research except for references to other people's work which have been duly acknowledged and it has neither in whole nor in part been presented for another degree in this university or elsewhere.

Signature: .....

Date: .....

### Supervisor's Declaration

I hereby declare that the preparation and supervision of this research work were done in accordance with the guidelines for the supervision of research work as laid down by the School of Graduate Studies, University of Education, Winneba.

Dr. Awini Adam (Supervisor)

Signature: .....

Date: .....

## **DEDICATION**

To my lovely family.

## **ACKNOWLEDGEMENTS**

I would like to express my deepest gratitude to the following individuals whose unwavering support, guidance, and encouragement have been invaluable throughout the journey of completing this thesis. First and foremost, I extend my heartfelt appreciation to my supervisor, Dr. Awini Adam for his unwavering dedication and expertise. His mentorship and insightful feedback have been instrumental in shaping the course of this research.

I extend my heartfelt appreciation to members of my family for their endless encouragement, love, and understanding. Their belief in my abilities has been my greatest motivation. I want to acknowledge my friends and colleagues for their support, stimulating discussions, and for providing me with much-needed breaks during this demanding journey. This thesis is a culmination of the collective efforts and support of all those mentioned above. While I have endeavoured to list everyone, who has played a significant role, any omission is unintentional and in no way diminishes the significance of your contributions. Thank you all for being an integral part of this academic endeavour.

## TABLE OF CONTENTS

<b>Content</b>	<b>Page</b>
DECLARATION	iii
DEDICATION	iv
ACKNOWLEDGEMENTS	v
TABLE OF CONTENTS	vi
LIST OF TABLES	x
LIST OF FIGURES	xi
ABSTRACT	xii
<b>CHAPTER ONE: INTRODUCTION</b>	<b>1</b>
1.1 Background to the Study	1
1.2 Statement of the Problem	9
1.3 Purpose of the Study	11
1.4 Research Objectives	11
1.5 Research Questions	12
1.5 Significance of the Study	12
1.6 Delimitations of the Study	13
1.8 Operational Definition of Terms	14
1.9 Organization of the Study	14
<b>CHAPTER TWO: REVIEW OF RELATED LITERATURE</b>	<b>16</b>
2.0 Overview	16
2.1 Theoretical Framework	16
2.1.1 School Reform and Educational Change Theory ( Fullan 1982)	16
2.2 Conceptual Framework	22

2.3	Concept of Inclusive Education in Ghana	25
2.4	Differentiate Instructions for Diverse Learners	27
2.4.1	Differentiating Content	27
2.4.2	Differentiating Process	28
2.4.4	Differentiating Learning Environment	30
2.5	Implementing Differentiated Instruction	32
2.6	Assessment Procedures for Diverse Learners' Performance	33
2.7	Facilitating Socialization among Learners in Inclusive Classroom Environments	38
2.7.1	Importance of Socialization in Inclusive Classrooms	39
2.8	Strategies to Facilitate Socialization Cooperative Learning Structures	41
2.8.1	Peer-Mediated Interventions	42
2.8.2	Social Skills Training Programs	43
2.9	Environmental Adaptations Implemented by Teachers to Support Diverse Learners Needs	46
2.10	Summary of Review of Related Literature	51
	<b>CHAPTER THREE: METHODOLOGY</b>	<b>52</b>
3.0	Overview	52
3.1	Research Paradigm	52
3.2	Research Approach	54
3.3	Research Design	56
3.5	Population	58
3.6	Sample and Sampling Techniques	59
3.6.1	Sampling technique	60
3.7	Instruments for Data Collection	61

3.8. Administration of the Research Instruments	64
3.8.2 Interviews guide	65
3.9 Procedure for the Interviews	65
3.10 Analysis of Quantitative Data	66
3.11 Pilot Test	67
3.12 Analysis of Qualitative Data	67
3.12 Validation of Quantitative Data	68
3.13 Reliability of the Quantitative Instrument	69
3.14 Trustworthiness of Qualitative Data	69
3.14.1 Confirmability	69
3.14.2 Dependability	70
3.14.3 Transferability	71
3.14.4 Credibility	72
3.15 Ethical Considerations	73
<b>CHAPTER FOUR: DATA ANALYSIS AND DISCUSSION</b>	<b>74</b>
4.0 Overview	74
4.1 Demographic Data of Respondents	74
4.2 Research Question One	76
4.3 Research Question Two	84
4.4 Research Question Three	92
4.5 Research Question Four	99

<b>CHAPTER FIVE: SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS</b>	<b>104</b>
5.0 Overview	104
5.2 Findings	104
5.3 Conclusions	105
5.4 Recommendations	105
5.5 Limitations of the Study	106
REFERENCES	107
APPENDIX A: QUESTIONNAIRES	118
APPENDIX B: INTERVIEW GUIDE FOR HEAD TEACHERS	122
APPENDIX C: OBSERVATIONAL GUIDE FOR EARLY CHILDHOOD TEACHERS	124
APPENDIX D: LETTER OF INTRODUCTION	126
APPENDIX C: LETTER FROM GES	127

## LIST OF TABLES

<b>Table</b>	<b>Page</b>
1: Demographic Information of respondents	74
2: Differentiated instructions for diverse learners in early childhood centres	76
3: Diverse Learner's Performance in Early Childhood Centres	84
4: Strategies Teachers use to Promote socialization among Diverse Learners	92
5: Environmental adaptations implemented by teachers to support diverse learners' needs	99

## LIST OF FIGURES

<b>Figure</b>	<b>Page</b>
2.1: Conceptual framework on teacher inclusive practices	22

## ABSTRACT

This study explored teachers' inclusive education practices in early grade centres within the Tamale Metropolis. The researcher adopted a mixed-methods concurrent design. A total of 141 respondents were sampled through quota, simple random, and purposive sampling techniques. The quantitative data were analysed using frequencies and percentages, while the qualitative data were analysed using a thematic approach. The findings revealed that teachers in early childhood centres differentiate instruction by employing various teaching strategies, such as visual aids, hands-on activities, and group work, to address the diverse learning needs of learners. Additionally, teachers use a range of assessment methods, including oral, written, and practical tasks, to evaluate learners' performance and accommodate different learning needs. The study concluded that teachers create inclusive and supportive learning environments in early childhood centres. By incorporating diverse teaching strategies and assessment methods, they address individual learner needs effectively. Furthermore, teachers promote socialization through cooperative activities and make environmental adaptations, such as seating arrangements and assistive tools, to enhance accessibility for learners with diverse needs. To further support inclusive education, the study recommended regular professional development workshops for teachers to enhance their skills for differentiating instruction. These workshops should emphasize flexible grouping, varied teaching materials, and multiple learning activities to cater to different learning needs. It also recommended that the Ghana Education Service (GES) develop and enforce guidelines for inclusive assessment procedures for early childhood teachers. These guidelines must promote the use of varied assessment methods to evaluate learners' performance fairly and objectively.

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Background to the Study**

The global dialogue surrounding inclusive education underscores the various practices and policies that exist in different contexts (UNESCO, 2020). The United Nations Convention on the Rights of the Child (UNCRC) and the Salamanca Statement by UNESCO promote inclusive education as a mechanism to encourage social inclusion and contribute to a more inclusive society (UNICEF, 2020). Inclusive education is not just an aspiration; it is acknowledged as a standard and a fundamental human right under international law (UN, 2006). For example, the UNCRC guarantees that all children have the right to an education free of discrimination, with Article 23 highlighting the involvement of children with disabilities (UN, 1989). Likewise, the Salamanca Statement has been instrumental in advocating for inclusive education, affirming that every child has distinct traits, interests, abilities, and learning requirements (UNESCO, 1994). As a result, education systems must adjust to these significant variations to uphold the educational rights of all children.

UNESCO's Global Action Programme on Education for Sustainable Development (GAP-ESD) acts as a collaborative platform for higher education institutions, encouraging innovative policies and practices that align education with broader sustainable development goals. Within this context, inclusive education is recognized as a crucial strategy for achieving transformation (UNESCO, 2020). However, the implementation of inclusive education faces numerous challenges, including insufficient resources, inadequate teacher training, and sociocultural attitudes that obstruct progress in certain countries (World Bank, 2018).

In the UK, inclusive education has been embraced through legislation such as the Children and Families Act 2014 and the Equality Act 2010, both of which require fair treatment for all learners (UK Government, 2014). Nonetheless, more focus is necessary to assist early childhood educators in addressing the growing diversity of learners' needs (Qorib, 2024). By promoting a global perspective on inclusive early childhood education (ECE), international agreements such as the UNCRC and the Salamanca Statement provide a framework for countries worldwide to adopt inclusive education.

Ghana's commitment to inclusive education is rooted in its constitutional framework. Article 38 of the Constitution mandates that the government shall provide equitable educational opportunities to all citizens of school-going age, irrespective of race, origin, political opinion, color, religion, creed, gender, or disability. This pledge guarantees the right to education for all individuals (Constitution of Ghana, 1992). Furthermore, Ghana ratified the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) in 2007, reflecting the government's commitment to inclusive education at all levels (United Nations, 2006). Nonetheless, the effective realization of these policies and treaties necessitates careful implementation.

Teachers are vital to the successful execution of inclusive education. They are tasked with creating educational environments where all children can learn and feel included. Their engagement is crucial for encouraging participation and mitigating the risk of underachievement, especially among students facing learning challenges. Differentiated instruction is an essential practice that enables teachers to customize their teaching methods, materials, and assessments to meet the diverse needs, interests, and learning styles of their students (Tomlinson, 2017).

This approach is particularly significant in early childhood education, where children develop at different paces and exhibit varying strengths, weaknesses, and readiness for learning. The objective of differentiated instruction is to assist each child in reaching their fullest potential by acknowledging their unique needs and supporting their development (Tomlinson, 2017). A differentiated instructional environment recognizes that every learner has distinct requirements and strengths, prompting educators to modify their teaching strategies accordingly (Taylor et al., 2017).

Moreover, sensory teaching enhances learning and retention by accommodating individual learning styles, thereby removing obstacles to learning and ensuring an appropriate pace for each student. This approach increases students' engagement with the content, positively influencing their academic performance and participation (Riley, 2017). The process of differentiated instruction requires educators to be adaptable in their methodologies, personalizing their teaching through three dimensions: guided discovery learning, content (what is learned), process (how it is learned), and product (how students showcase their understanding) (Pozas et al., 2020).

Content differentiation entails selecting and presenting information in ways that resonate with each student, enabling them to connect with the same material through tailored approaches. Crafting lessons that cater to various cognitive levels allows teachers to address the diverse abilities present in their classrooms. Process differentiation involves varying instructional strategies to accommodate different learning styles, using techniques such as lectures, discussions, and active learning. Finally, offering students options for demonstrating their understanding through varied products provides a more comprehensive assessment of their learning.

Differentiated instruction modifies teaching methods, materials, and assessments to meet the needs of various students and their learning styles. This approach is particularly essential in early childhood education, where children's developmental rates differ. Sensory teaching further enriches learning by aligning with students' learning preferences, fostering engagement and academic achievement. To effectively implement differentiated instruction, educators must remain flexible in their approaches, employing diverse instructional methods and allowing students to exhibit their understanding in multiple formats. Traditional assessments can be replaced or supplemented with projects, presentations, or other creative outputs tailored to a student's capabilities. Differentiated instruction effectively addresses the range of learning styles and abilities in a classroom. Implementing this teaching practice in early-grade settings can enhance accessibility for all learners and improve educational outcomes.

Teachers are central to promoting inclusive education in early childhood settings by monitoring the progress of diverse learners. By observing and evaluating students' performances, regardless of their varied backgrounds and abilities, educators can adapt their approaches to meet individual learning preferences (Early Childhood Australia, 2014). A variety of assessment tools, such as informal observations, student portfolios, checklists, and developmental screening tools, should be utilized to identify each child's specific needs (Sakyi, 2017).

When educators accurately assess the developmental needs, strengths, and challenges of individual children, they can provide tailored support (Sakyi, 2017). In Ghana, where students encounter disparities in access to learning materials, assessments are

crucial for identifying children who may require additional assistance, including those with disabilities and those from disadvantaged backgrounds (Amankwah, 2017).

Reliable assessments of children's learning are essential for their success (DET, 2018). The Department for Education and Training (2018) emphasizes that thorough assessments are vital for understanding each child's unique experiences and developmental journey. By gathering substantial data, educators can gain insights into a child's learning trajectory and identify gaps in understanding or achievement. Such evaluations are important for monitoring a child's cognitive, emotional, and personal development (Raikes, 2017). Additionally, focused assessments assist teachers in determining the most effective ways to support a child's learning.

The National Association for the Education of Young Children (NAEYC, 2005) in the United States argues that assessing young children provides valuable information that helps teachers plan instruction based on the child's capabilities and interests. This planning is crucial for incorporating engaging curriculum content that fosters literacy, cognitive, and learning skills. This perspective aligns with the need for recognizing diversity in sociocultural and learning differences within the education system in England. Robust assessments equip early educators with insights into children's modes of understanding and promote culturally appropriate pedagogy (NAEYC, 2009). Furthermore, these assessments guide teachers in designing meaningful and relevant instruction, fostering a collaborative learning environment where children from all backgrounds can work together and learn from one another (UNESCO, 2008).

In early childhood education, inclusive assessments are significant, as they help teachers understand each learner's needs, abilities, and sociocultural backgrounds.

This understanding allows educators to develop effective teaching methodologies that stimulate and motivate students. Acknowledging and respecting learner diversity is essential for creating an inclusive educational environment that enhances learning and improves the overall quality of education in society.

Additionally, teachers in early childhood centers play a crucial role in promoting socialization among learners from diverse backgrounds. Research indicates that children who feel accepted and valued are more inclined to engage in learning and develop positive social and emotional skills (Jalongo & Ross, 2018). Despite facing limited resources in Ghanaian early childhood centers, teachers can create a culture of inclusion and belonging by intentionally teaching children to value differences, cooperate, and relate to one another. Celebrating cultural traditions, food, clothing, and languages as part of the classroom curriculum fosters self-worth and appreciation for diversity among children (Kofi, 2016). However, inclusion remains a challenge in many Ghanaian early childhood centers due to resource constraints and diverse learner needs. Therefore, promoting a sense of belonging is imperative to avoid exclusion and ensure equitable learning opportunities (Ofori-Attah, 2020). Ghanaian teachers utilize culturally responsive teaching styles that recognize and celebrate diversity, which enhances children's self-esteem and encourages mutual respect (Amankwah, 2017). The need to belong is essential for every child's ability to thrive in early childhood education settings in Ghana.

Most classrooms consist of students with a wide range of abilities, backgrounds, and identities. To create an inclusive and harmonious learning environment, early childhood teachers must reflect on how to promote belonging, acceptance, and positive peer interactions (Banks et al., 2016). Teachers often overlook their vital role

in modeling inclusive behavior. According to Matchel and Sutherland (2020), teachers can be both the first barrier and the first instrument of inclusion. Their openness, acceptance, and attitudes significantly influence their learners (Ramaila, 2025).

Teaching techniques that respect individual differences not only enhance learning but also foster a culture of inclusion for students with varying abilities. Differentiated instruction and collaborative information sharing enable all students to learn in ways that suit them, highlighting diverse backgrounds and learning differences (Ismail & Al Allaq, 2019). Such differentiated learning encourages peer interactions among students (Ismail & Al Allaq, 2019).

The often-overlooked impact of physical classroom arrangements on peer social interactions and inclusion should also be considered. Thoughtful pedagogical elements, such as flexible seating and designated group work areas, can facilitate positive interactions among students of different abilities (De Vroey et al., 2016). To harness the power of peer dynamics in fostering belonging and acceptance, teachers can implement cooperative learning strategies. This approach encourages students of varying skills and backgrounds to work together toward shared goals, thus promoting understanding, respect, and peer support (Gillies, 2016).

Addressing the challenges and possibilities of including children with diverse developmental and experiential backgrounds in early education requires teachers, policymakers, and stakeholders to commit to strategies that promote inclusive classrooms, where academic achievement and a sense of belonging are prioritized. Such an environment is essential for every student to thrive, regardless of their abilities or backgrounds.

Lastly, teachers play a crucial role in enacting inclusive practices in early childhood centers by making environmental modifications responsive to the unique needs of diverse learners. These modifications may include simple seating adjustments that encourage interaction among children, creating quiet areas for overstimulated children, and providing materials that accommodate different learning styles (Farmer et al., 2018). For instance, visual learners may benefit from diagrams or pictographs, while auditory learners can be engaged through music, rhymes, or verbal instructions. Classroom arrangements can be adapted to accommodate the varying mobility requirements of children with physical disabilities.

Teachers can also utilize low-cost, locally available materials (such as cardboard, sticks, and cloth) to create adaptable teaching aids that cater to different learning styles (Nyarko, 2018). Such environmental modifications promote the participation of all children in classroom activities, regardless of their specific needs. One effective mechanism for addressing diverse learning requirements is environmental adaptation. By making adjustments within the learning environment, teachers can significantly enhance the educational experience for all learners. Cognitive theories from scholars like Vygotsky and Piaget emphasize the critical role of the environment in child development (Moore, 2017)

Early grade centres must adapt their environments and employ innovative teaching methods to better accommodate the diverse learning styles of younger learners (Mitchell & Sutherland, 2020). Empirical evidence supports the effectiveness of environmental adaptations in meeting the needs of learners with varying abilities, thereby enhancing their educational experiences. Heterogeneous learners include

those with learning difficulties, language barriers, and different developmental rates. By implementing environmental accommodations, educators can facilitate these learners' integration into conventional educational settings (Crockett, 2018). A vibrant atmosphere fosters curiosity and enhances students' interest and concentration in their activities. Wong and Liem's (2022) motivational ecological model links stimulating environments to increased attendance and improved performance.

These insights suggest that environmental adaptation not only addresses the diverse needs of learners but also enhances their enjoyment of learning. Consequently, teachers should equip themselves with effective strategies for implementing environmental adaptations, as these are crucial for shaping the future of diverse learning.

The literature clearly indicates that teachers are the primary implementers of inclusive education practices in Early Childhood Education. This study aims to explore how teachers adapt instruction for diverse learners, assess their performance, promote socialization among them, and carry out environmental adaptations in early childhood centers in the Tamale Metropolis.

## **1.2 Statement of the Problem**

Discussions with early childhood teachers in Tamale revealed significant knowledge gaps regarding inclusive education practices. Teachers expressed challenges in individualizing instruction to meet students' needs, assessing performance, and fostering an inclusive classroom environment. This aligns with Opoku's (2015) assertion that inclusive education in Ghana requires teaching practices that cater to all students, including those with special educational needs. Recognizing that each child has a unique learning style underscores the importance of pedagogical strategies that

include differentiation, interactive teaching, and comprehensive assessment to ensure that no child is left behind (UNESCO, 2017).

Despite the Ghanaian government's commitment to inclusive education to address stigma and the learning needs of all students (Ministry of Education, 2013), barriers to its implementation persist. Some teachers have admitted they lack the skills necessary for differentiating instruction, which is fundamental in an inclusive classroom. This observation is consistent with findings by Mohammed (2020), who noted that many Ghanaian teachers are unfamiliar with differentiation strategies, despite their essential role in addressing the diverse needs of mixed-ability classrooms.

Additionally, the researcher observed that teachers struggle to respond to students' strengths and weaknesses due to overcrowded classrooms. This aligns with the challenges reported by Ananga and Tamanja (2018) and the Ministry of Education (2018), which highlighted how uneven resources and logistics hinder inclusive education. Teachers also reported difficulties with classroom environments, as many schools were designed for non-disabled learners, making mobility challenging for children with disabilities. Ackah-Jnr and Danso (2018) emphasized that the physical infrastructure of Ghanaian schools often does not consider the needs of students with disabilities.

Cultural beliefs and superstitions emerged as another significant barrier. Some teachers indicated that negative attitudes toward children with disabilities persist, often rooted in cultural beliefs framing these children as cursed, as noted by Mills (2018). Such stereotypes create additional obstacles that hinder the establishment of inclusive environments.

Moreover, there is a pressing need for more teacher training to facilitate successful socialization between children with and without disabilities. This task is challenging, as it requires greater effort to create opportunities for interaction. Pasha et al. (2021) assert that both pre-service and in-service teachers need training to effectively facilitate experiential learning activities that promote socialization, including field studies.

From personal observations and the existing literature, it is evident that inclusive education in the Tamale Metropolis faces several hurdles, including teachers' capacity in differentiated instruction, assessment, social integration, and environmental adaptation. Therefore, there is a need for in-depth research into how teachers implement inclusive education practices in early childhood centers within the Metropolis. It is in the light of this that the researcher sought to explore teachers' inclusive education practices in early childhood centres in the Tamale Metropolis.

### **1.3 Purpose of the Study**

The purpose of this study was to explore teacher inclusive education practices in early childhood centres in the Tamale Metropolis.

### **1.4 Research Objectives**

The objectives of the study are to:

1. Examine the strategies teachers use to differentiate instructions for diverse learners in early childhood centres in the Tamale Metropolis.
2. Assess teachers' assessment procedures for diverse learners' performance in the early childhood centres in the Tamale Metropolis
3. Find out how teachers facilitate socialization among learners in inclusive classroom environments in the Tamale Metropolis.

4. Identify environmental adaptations implemented by teachers to support diverse learners' needs in the early childhood centres in the Tamale Metropolis.

### **1.5 Research Questions**

1. What strategies do teachers use to differentiate instructions for diverse learners in early childhood centres in the Tamale Metropolis?
2. What assessment procedure do teachers use for assessing diverse learners' performance in early childhood centres in the Tamale Metropolis?
3. How do teachers promote socialization among diverse learners in inclusive classroom environments within the Tamale Metropolis?
4. Which environmental adaptations are implemented by teachers to support diverse learners' needs in early childhood centres in the Metropolis?

### **1.5 Significance of the Study**

The study highlights best practices that enhance inclusive and effective teaching, ensuring that all learners receive appropriate support to maximize their learning potential.

The study assesses the assessment procedures used by teachers to evaluate diverse learners' performance, offering a deeper understanding of how assessment practices can be adapted to cater to individual learning differences and promote equitable learning outcomes.

Furthermore, the study explores how teachers facilitate socialization among learners in inclusive classroom environments, shedding light on the strategies that foster positive interactions, peer relationships, and collaborative learning experiences among

children from diverse backgrounds. This is crucial in promoting inclusivity and ensuring that all learners feel valued and supported within the school setting. Moreover, the study identifies environmental adaptations implemented by teachers to support the diverse needs of learners, emphasizing the importance of creating learning environments that accommodate varying abilities and enhance accessibility for all children.

The findings from this study will be beneficial to early childhood educators, policymakers, and curriculum developers by providing evidence-based recommendations for improving instructional strategies, assessment procedures, socialization approaches, and environmental adaptations in early childhood education. The study will contribute to enhancing the quality of teaching and learning, fostering an inclusive educational experience for all learners in the Metropolis.

Finally, this study will provide data on environmental adaptations teachers implement in the Metropolis to support the needs of diverse learners and the impact it makes in their learning experiences. This also, will help teachers in the Metropolis to create a vibrant environment that will stimulate curiosity in learners, and this will lead to heightened interest and concentration in their activities. This study findings would also be useful to other researchers who might want to conduct similar studies in different locations or replicate this study

### **1.6 Delimitations of the Study**

Geographically, the study is delimited to teacher inclusive education practices in the Tamale Metropolis, kindergarten teachers of Tamale Metropolis, head teachers and pupils of the Tamale Metropolis. Contextually, the study concentrated on teacher

inclusive education practices in early childhood centres not on any other teacher practices.

### **1.8 Operational Definition of Terms**

**Teacher Inclusive Education Practices:** Techniques, methodologies, and management strategies employed by teachers to support all students, regardless of special educational needs in an inclusive setting.

**Early Childhood Centres:** Educational institutions that provide care and instruction to young children, typically ranging from birth to 8 years old.

**Inclusive Education:** An educational approach that values diversity and ensures that all learners, regardless of their physical, intellectual, social, or emotional differences, are included in the general education system.

**Differentiated Instruction:** A teaching approach that involves adjusting the content, process, product, and learning environment based on the diverse needs, interests, and learning profiles of students.

**Diverse Learners:** Students who come from varied backgrounds and have different learning needs, abilities, and experiences.

### **1.9 Organization of the Study**

The thesis will be organized in five chapters. Chapter one will consist of the background, problem statement, research objectives, research questions, significance of the study, delimitations of the study, and definition of terms. Chapter two will be a review of related literature covering theoretical review, theoretical framework, and conceptual framework. Chapter three of the study will be methodology, which will cover research design, philosophical underpinning, population of the study, sampling

technique, sample size, data collection instrument, data collection procedure, data analysis plan, and ethical considerations. Chapter four of the study deals with data presentation, analysis, interpretations and discussion of findings from data collected under the study. Chapter five of the study will be the last and it will deal with a summary, conclusions, and recommendations to be implemented.

## **CHAPTER TWO**

### **REVIEW OF RELATED LITERATURE**

#### **2.0 Overview**

This chapter deals with the related literature review under the following subheadings:

- Theoretical framework
- Conceptual framework
- Concept of Inclusive Education in Ghana
- Differentiate Instructions for Diverse Learners
- Implementing Differentiated Instruction
- Assessment procedures for diverse learners' performance
- Facilitating socialization among learners in inclusive classroom environments
- Environmental adaptations implemented by teachers to support diverse learners' needs
- Summary of the Related Literature Review

#### **2.1 Theoretical Framework**

##### **2.1.1 School Reform and Educational Change Theory ( Fullan 1982)**

Fullan 1982 emphasizes that education is a complex, multifaceted endeavor, proposing a model centered on community, leadership, and continuous learning. At the core of Fullan's theory is the conviction that "sustainable education reform does not simply arise from top-down mandates or quick-fix solutions; it requires systemic change that addresses all relevant issues and levels, engaging all stakeholders in a collaborative and open-minded manner" (Fullan 1982, p. 85). Fullan's philosophy of school reform and educational change is anchored on several key principles. Central to his thesis is the idea that change is a complex process that must be meticulously

aligned across multiple factors, both within and beyond the classroom. Unlike common perceptions of change that often prioritize new programs or policies, Fullan's model highlights the interconnectedness of policy, practice, and the individuals who teach or lead within schools. He views change as a dynamic process influenced by various factors, including school culture, leadership, and the broader educational system (Fullan, 2001).

Fullan, 1982 asserts that when the objective is educational change, merely focusing on alterations in instruction or curriculum insufficiency, deeply held beliefs and practices throughout the organization must also evolve. This understanding is rooted in the necessity of fostering shared values and creating an environment conducive to innovation and reinvention.

Fullan's theory of educational change offers a systemic, collaborative, and sustainable framework for enhancing schools. His model prioritizes leadership, collaborative culture, ongoing learning, and the active involvement of all stakeholders in facilitating impactful changes in teaching and learning. This theory is particularly relevant for inclusive early childhood practices, where diverse learners, including those with disabilities, children from immigrant backgrounds, and those with varying language needs, are served. In this context, inclusive practices related to differentiation, assessment, acceptance, socialization, belonging, and environmental adaptations are crucial for cultivating an equitable and supportive learning environment.

One practice that exemplifies Fullan's emphasis on individualized support and inclusive learning settings is differentiation. Fullan (2007) argues that effective change occurs when educational systems respond to the needs of learners, which

forms the basis of differentiated instruction. In early childhood centers, this involves adapting teaching methods, content, and assessment strategies to accommodate the diverse needs of students. For example, teachers can adjust the pace of instruction to suit children's processing times, provide additional visual aids, incorporate hands-on activities, and utilize differentiated instruction to ensure that every student can engage at a level conducive to their learning (Tomlinson, 2001).

The process of differentiation aligns with Fullan's (2016) vision of fostering a culture of continuous learning and adaptation among educators. In kindergartens, teachers collaborate to identify children's needs and design experiences that facilitate various learning pathways. This may include offering diverse resources tailored to different learning styles, such as tactile objects for kinesthetic learners or auditory stories for those who learn best through listening. By differentiating the curriculum, teachers ensure that all children have the opportunity to engage with content at their appropriate levels of strength and challenge.

Fullan (2007) emphasizes the importance of data-informed decision-making in educational change, particularly regarding understanding students' varied needs. In early childhood education, it is essential to employ appropriate assessment practices to identify children's learning requirements, monitor their progress, and adjust teaching strategies as needed. Authentic assessment of young children necessitates the use of multiple methods, including observation, play-based assessments, portfolio collections, and formative assessments, to gain a comprehensive understanding of each child's developmental status and learning dispositions (Bagnato, 2010).

Participation in early childhood settings is facilitated by assessment practices that are culturally and linguistically sensitive, as well as responsive to developmental

differences. For instance, teachers must remain vigilant regarding potential biases in standardized assessments and ensure that the tools used are suitable for all children, including those from non-dominant cultural or linguistic backgrounds. Moreover, Fullan (2007) advocates for ongoing assessment, where educators continually gather data on student progress and modify their instruction accordingly, fostering an adaptive and inclusive learning environment.

Involving families in the assessment process can also enhance awareness of a child's development. Parents and caregivers provide vital insights into the child's home life, cultural background, and individual needs. Fullan (2007) highlights the importance of partnerships with all stakeholders—particularly parents within the educational process.

Creating an inclusive environment also entails fostering a culture of openness and belonging, ensuring that children feel safe and accepted. Fullan (2007) advocates for the development of a supportive and inclusive school culture, a principle that equally applies to early childhood centers. This involves addressing not only the academic needs of children but also their social-emotional development and relationships.

Promoting acceptance and socialization in early childhood programs may involve directly teaching children about diversity and inclusion through activities that nurture empathy, respect, and understanding. For example, educators can share stories and activities celebrating various cultures, abilities, and family experiences, allowing children to recognize and appreciate differences. Social skills are cultivated through group activities and cooperative learning, where children collaborate, share materials, and learn effective communication.

Establishing a sense of belonging among students must be a deliberate effort by educators. Fullan (2007) contends that school leadership should prioritize nurturing a climate of relationships and community. In early childhood settings, this is reflected in practices where teachers model inclusive behavior, reinforce positive examples of inclusivity, and value and respect the uniqueness of each child.

Fullan's theory emphasizes the importance of collaboration among teachers in creating supportive learning environments. This is evident in the collaborative efforts of educators across early childhood centers to implement inclusive practices that address the social and emotional needs of all children, ensuring that no child is left behind or excluded.

Adapting the learning environment is crucial for promoting inclusion, as it directly affects children's access to educational activities. Fullan (2007) asserts that transformational change in the physical and structural landscape is essential for educational success. This involves designing early childhood settings that actively meet the needs of all children, including those with disabilities.

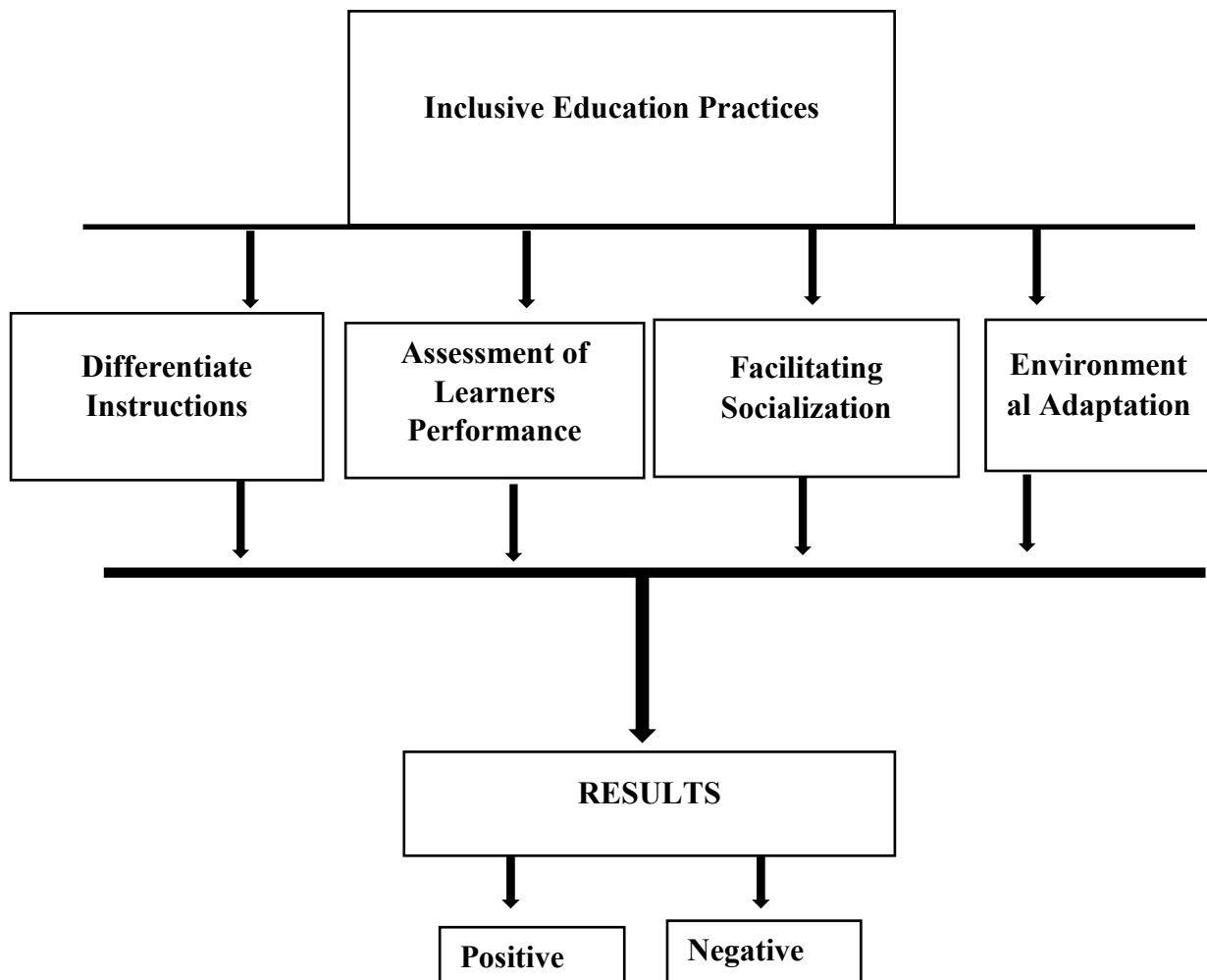
Modifications to the physical learning environment, such as arranging classroom furniture to accommodate children with mobility challenges, creating sensory-friendly spaces for those with sensory processing needs, and providing accessible materials and curricula for children with visual or hearing impairments, are vital. Additionally, assistive technologies, like communication devices, apps, and screen-reading software, can help diverse learners engage with the curriculum. Fullan (2007) highlights the role of leadership in facilitating these changes, emphasizing the

collaboration between teachers and leaders to create optimal learning conditions for all students.

Furthermore, Fullan (2007) argues that effective educational change requires systemic transformation rather than isolated innovations. In early childhood settings, this means ensuring that all staff members—teachers, administrators, and paraprofessionals—are equipped to identify the diverse needs of learners and provide appropriate support. It also involves forming partnerships with external agencies, such as speech and occupational therapists, to support children's holistic development in a coordinated manner.

Applying Fullan's theoretical framework for educational change is essential for fostering inclusive early childhood practices. This requires an environment that is collaborative, responsive, and flexible to meet the needs of all children. Differentiation, assessment, fostering acceptance and belonging, and making environmental adjustments empower early childhood centers to create inclusive learning environments where every child can thrive. Fullan's emphasis on leadership, collaboration, and 'deep learning' provides an inspiring approach for educators working together to build and enhance capacities for inclusive practices that are both sustainable and effective in promoting equity and access for all children.

## 2.2 Conceptual Framework



**Figure 2.1: Conceptual Framework**

The conceptual framework provides a structured way of understanding how teachers can create inclusive learning environments in early childhood centres, particularly within the Tamale Metropolis. This framework is crucial in guiding educators to design and implement practices that accommodate the diverse needs of all learners in the classroom. The goal is to ensure that all children, regardless of their abilities or backgrounds, can participate in and benefit from the learning process. The framework connects closely with the topic of Teacher Inclusive Education Practices, emphasizing the importance of adapting teaching strategies, assessments, socialization efforts, and classroom environments to meet the needs of diverse learners.

Inclusive education means creating a learning environment where every child feels valued, included, and supported, no matter their challenges or differences. This is where differentiated instruction comes into play. Differentiated instruction involves modifying teaching methods to cater to the different learning styles, abilities, and interests of students. In an inclusive classroom, teachers might use various strategies like visual aids, hands-on activities, or group work to ensure that all students can understand the material and participate in class activities. For example, a teacher might provide extra support to a child with learning difficulties by using a visual learning tool, while a child who excels might be given an additional challenge to further develop their skills.

Another key part of the framework is the assessment of student performance. Teachers need to assess students in ways that reflect their diverse abilities. Traditional tests might not be the best way to measure the learning of all students, especially those with disabilities or special needs. Teachers might use different forms of assessment, such as observation, oral presentations, or practical activities, to assess students' understanding. For example, instead of having a student with a reading difficulty take a written test, the teacher might ask the student to show their understanding through a hands-on activity or a verbal explanation. This allows the teacher to gather meaningful feedback on the student's progress while respecting their unique learning needs.

Socialization is another important aspect of inclusive education. It is essential that children learn how to interact with one another, share ideas, and work together. In an inclusive classroom, teachers facilitate opportunities for all children to engage with each other, learn from one another, and build friendships. Teachers can encourage

socialization through group activities, cooperative games, or partner work. For instance, a teacher might assign children to work in pairs or small groups where each child has a specific role, allowing them to collaborate with their peers. This helps foster a sense of belonging and ensures that every child feels included in the classroom community.

Environmental adaptations are also crucial in supporting diverse learners. These adaptations involve modifying the physical classroom setting to accommodate students with special needs or disabilities. This could include using sensory toys for children with autism or providing adjustable seating arrangements to help children with mobility challenges. By making these changes, teachers can create a more inclusive classroom environment that supports the specific needs of each learner. For example, a teacher might place chairs in a circle for group discussions to encourage participation or provide quiet spaces for children who may become overwhelmed by noise and activity.

The interconnectedness of these inclusive practices is highlighted in the conceptual framework. When teachers integrate differentiated instruction, varied assessments, socialization opportunities, and environmental adaptations, they create a classroom environment that enables every student to succeed. These practices work together to support students in various ways, ensuring that all children have equal opportunities to learn and grow.

By examining how these inclusive education practices are implemented in the Tamale Metropolis, the study can assess how well these practices are working and offer recommendations for improvement. It can provide valuable insights into how early childhood centres can better support diverse learners and create inclusive educational

environments where all children, regardless of their abilities, can thrive. This can lead to better outcomes for children, promote social inclusion, and help teachers develop more effective teaching practices that cater to the needs of every student in the classroom.

### **2.3 Concept of Inclusive Education in Ghana**

In Ghana, inclusive education is progressively acknowledged as a vital strategy for ensuring equitable access to quality education for all children, including those with disabilities and special educational needs (Ministry of Education & UNICEF Ghana, 2015). The concept aligns with international frameworks and local policies designed to advance educational equity and social inclusion (Republic of Ghana, 2015).

The implementation of inclusive education in Ghana is guided by several key principles and policies. The Ghana Education Service (GES) underscores the right of every child to education, irrespective of disability or socio-economic background, aligning with the nation's commitment to international conventions such as the UNCRPD (Republic of Ghana, 2015). The GES policy framework advocates for the integration of children with disabilities into mainstream schools, aiming to establish supportive environments where all students can learn collaboratively and benefit from inclusive educational methods (Republic of Ghana, 2015).

Inclusive education in Ghana is perceived as a means to foster social justice, empower marginalized groups, and tackle disparities in educational opportunities. It emphasizes the provision of necessary support and accommodations to address diverse learning needs, ensuring that no child is excluded from educational access due to disability or other factors (UNESCO, 2017).

The effective execution of inclusive education in Ghana involves various strategies and initiatives. A critical element is the capacity building of teachers and school administrators to equip them with the knowledge and skills necessary to effectively support diverse learners (UNESCO, 2017). Professional development programs focus on inclusive teaching methodologies, curriculum adjustments, and the application of assistive technologies to enhance learning outcomes for students with disabilities (Boateng & Riddell, 2016).

Moreover, inclusive education in Ghana stresses the importance of collaboration among stakeholders, including government bodies, non-governmental organizations (NGOs), parents, and communities. These partnerships are essential in advocating for inclusive policies, mobilizing resources, and raising awareness about the significance of inclusive practices in education (UNESCO, 2017).

Challenges remain in the implementation of inclusive education in Ghana. Limited resources, infrastructural deficits, and inadequate funding present obstacles to providing sufficient support and accommodations for students with disabilities (Boateng & Riddell, 2016). Additionally, attitudinal barriers and stigma surrounding disability within communities and schools impede the full integration and acceptance of students with disabilities into mainstream educational environments (UNESCO, 2017).

Despite these challenges, inclusive education in Ghana has demonstrated positive effects on students' academic performance, social integration, and overall well-being. Research indicates that inclusive classrooms foster positive attitudes towards diversity, promote peer support networks, and enhance the learning experiences of all students (Boateng & Riddell, 2016).

## **2.4 Differentiate Instructions for Diverse Learners**

Differentiated instruction is a pedagogical approach aimed at addressing the unique learning differences among students by recognizing their individual needs, interests, and capabilities. This method ensures that educators intentionally design and deliver lessons tailored to these differences, enabling all students to engage meaningfully with the curriculum. This consideration is especially critical in diverse classrooms, where students may vary widely in their cultural backgrounds, learning abilities, and interests.

Differentiated Instruction (DI), also known as Direct Instruction, is founded on the principle that teaching should be customized to cater to each learner's needs (Tomlinson, 2001). This philosophy prioritizes the student and assumes that learners excel when instructional methods and materials are aligned to their unique skills and requirements. The fundamental tenet of a differentiated classroom recognizes that students exhibit various learning styles, interests, and readiness for different tasks. Therefore, this approach requires flexibility and responsiveness from educators in developing and implementing a diverse array of teaching strategies.

There are four main components of differentiated instruction: content, process, product, and learning environments (Tomlinson & Imbeau, 2010). These components enable educators to customize their instruction to meet the varying needs of their students.

### **2.4.1 Differentiating Content**

Differentiated content is a pedagogical approach aimed at addressing the unique learning differences among students by recognizing their individual needs, interests, and capabilities. This method ensures that educators intentionally design and deliver

lessons tailored to these differences, enabling all students to engage meaningfully with the curriculum. This consideration is especially critical in diverse classrooms, where students may vary widely in their cultural backgrounds, learning abilities, and interests.

#### **2.4.2 Differentiating Process**

The process aspect of differentiated instruction pertains to the methods through which students grasp content. Educators can differentiate this process by offering a variety of activities tailored to different learning styles and preferences, allowing students to process information in the ways that work best for them (Heacox, 2012). This strategy not only boosts student engagement but also enhances comprehension, since learners often have varying preferences for how they learn.

One effective approach for differentiating the process is to provide multiple opportunities for students to showcase their understanding through activities that align with different learning styles. For instance, hands-on projects and laboratory experiments can be particularly beneficial for students who excel in kinesthetic learning. These learners thrive on direct engagement with materials, such as using blocks to grasp mathematical concepts or performing simple experiments in an early childhood setting.

Conversely, auditory learners may achieve greater success by listening to stories and participating in discussions. Educators can assist these students by facilitating group discussions, storytelling sessions, or utilizing audio materials, which helps them absorb information more effectively through auditory means.

Visual learners, who prefer to receive information visually, can be engaged through activities that involve charts, diagrams, and images. In early childhood education, teachers might employ colorful posters, picture books, and drawing activities to solidify students' grasp of new ideas. For example, while teaching about the life cycle of a butterfly, students may benefit from viewing a video, examining diagrams, and creating drawings to illustrate each stage of the cycle.

### **2.4.3 Differentiating Product**

The term "product" refers to the means by which students demonstrate their learning (Anderson, 2007). Differentiating products allows students to select how they showcase their understanding, aligning with their unique strengths and interests (Anderson, 2007). This method can boost student motivation and yield a more accurate reflection of their learning outcomes (Heacox, 2012). For example, in an early childhood classroom, students might show their knowledge of community helpers through various methods: creating a drawing of a firefighter or police officer, constructing a model of a fire station, or performing a skit that illustrates the roles of these community figures. Such options not only allow for personal expression but also promote deeper learning through engaging and relevant tasks.

In a science classroom focusing on the solar system for instance students might choose to create a color-coded model of the planets, write an in-depth paper on each planet's characteristics, or produce a video presentation. This variety enables educators to accommodate students with different strengths, whether in artistic creation, written expression, or digital media. By capitalizing on their individual talents, students can engage meaningfully with the subject matter.

Providing students the opportunity to choose how they demonstrate their knowledge fosters a sense of ownership in their learning journey, which can enhance motivation and involvement. For instance, a student passionate about filmmaking may be more invested in creating a documentary-style video than in writing an essay, leading to a more profound exploration of the topic.

Additionally, this differentiated approach offers teachers a broader understanding of student learning. Traditional assessments like tests and quizzes often emphasize rote memorization and may not accurately reflect students' knowledge or abilities (Donnerstein). By allowing students to showcase their learning in various ways, educators can evaluate a wider array of skills and competencies. For instance, a child who struggles with written assignments may excel in visual projects or role-playing activities, helping teachers identify individual strengths and challenges.

Moreover, differentiating products supports the development of multiple intelligences, as proposed by Gardner (1983). Since no two students exhibit the same type of intelligence, providing various avenues for demonstrating understanding allows educators to cater to multiple intelligences, including linguistic, logical-mathematical, spatial, musical, bodily-kinesthetic, interpersonal, intrapersonal, and naturalistic. For example, in a social studies unit on ancient civilizations, a student with strong interpersonal intelligence might thrive in a collaborative presentation project, while a student with strong intrapersonal intelligence might create a reflective application that expresses their personal views on the material studied.

#### **2.4.4 Differentiating Learning Environment**

The learning environment is fundamental to effective differentiated teaching. A differentiated classroom is defined by its flexibility, where students progress through

various levels of understanding instead of being restricted to fixed stations (Tomlinson & Imbeau, 2014). This adaptability includes organizing the classroom into distinct work areas that facilitate diverse educational tasks and nurturing a culture that values diversity while promoting collaboration and risk-taking (Tomlinson, 2001).

For example, a teacher might set up multiple learning sessions to accommodate different activities, such as a quiet reading area, a group brainstorming space, and an active learning zone equipped with digital tools. These designated areas allow students to select the environment that best fits their learning preferences on a particular day.

A comfortable reading nook can provide a quiet area for students who prefer independent reading or reflective work, furnished with soft seating, a variety of books at different levels, and tools for note-taking or sketching. On the other hand, a collaborative space with movable desks can foster teamwork, enabling students to engage in discussions, group projects, or peer tutoring. Such an environment encourages social learning and develops essential skills like communication and collaborative problem-solving.

Additionally, a tactile learning station can offer hands-on experiences, particularly beneficial for students with Autism, ADHD, or other special needs. This station could be stocked with manipulatives, science supplies, art materials, or interactive digital devices, promoting active participation and a deeper understanding of complex concepts, especially for kinesthetic learners who thrive on movement and tactile experiences.

## **2.5 Implementing Differentiated Instruction**

To effectively address the diverse needs of learners, differentiation in instruction entails meticulous planning and continuous assessment. Formative evaluations are vital tools for educators to collect detailed insights regarding students' readiness, interests, and learning profiles (Tomlinson & Imbeau, 2010). This information equips instructors to provide tailored instruction that promotes growth for each student.

A range of formative assessment techniques like quizzes, checklists, student reflections, and peer assessments are beneficial throughout the academic year for monitoring student progress and identifying areas needing additional support or enrichment. For example, informal assessments during group activities or class discussions allow educators to assess understanding and adjust instruction in real time. Brief evaluations can uncover misconceptions or gaps in knowledge, leading to timely interventions that enhance learning experiences (Tomlinson & Imbeau, 2010).

Professional development TLMs and collaboration among educators are essential for the successful implementation of differentiated strategies. Teachers can improve their practices by exchanging best practices, resources, and experiences, collectively advancing their knowledge and skills in differentiated instruction, and also facilitating collaborative planning sessions for educators, where they can analyze student data together and design lessons that accommodate all learners, resulting in enriched educational experiences. This collaborative approach nurtures an environment where teachers can enhance their professional practices and positively impact their instructional practices (Tomlinson & Imbeau, 2010).

Despite the advantages of differentiated instruction, challenges persist, particularly regarding the time and effort needed to plan and deliver diverse learning experiences.

Educators must create lessons that provide a variety of options, including different concepts, levels of support, and methods for demonstrating learning. Nonetheless, research reveals that the benefits of differentiated instruction, such as increased student motivation, engagement, and achievement, significantly outweigh these challenges (Tomlinson & Imbeau, 2010).

To effectively tackle the challenges of differentiation, teachers can gradually integrate differentiated strategies into their teaching routines. This approach allows educators to gain experience and confidence in adjusting their instruction to meet the diverse needs of all students. Additionally, technology can support differentiated instruction by offering access to various digital resources and tools that cater to different learning styles and levels.

## **2.6 Assessment Procedures for Diverse Learners' Performance**

Smith and Brown (2003) explored the critical relationship between differentiated assessment practices and student achievement in mathematics. Their findings highlighted the substantial impact of creating assessments that align with individual learners' profiles. The study indicated that when assessments are customized to fit student strengths and preferences, comprehension and motivation improve significantly (Smith & Brown, 2003).

Differentiated assessment involves modifying evaluation methods based on learners' characteristics, including readiness, interest, and learning profiles (Tomlinson, 2001). This approach not only acknowledges the diversity among students but also emphasizes it to foster more engaging and effective academic experiences (Tomlinson, 2001). Smith and Brown's research suggests that the benefits of differentiated instruction can be amplified in mathematics, a subject often challenging

due to its abstract nature and varying levels of student readiness (Smith & Brown, 2003).

Their study aligns with broader educational theories that advocate for personalized learning. Hattie and Timperley (2007) argue that effective assessment should not only gauge learning but also provide feedback that facilitates improvement. Smith and Brown incorporated various components of differentiated assessment to proactively enhance student understanding and motivation in mathematics, thereby refining best teaching practices (Hattie & Timperley, 2007).

Differentiated assessment techniques not only impact academic achievement but also hold broader implications. According to Tomlinson (2001), when students perceive assessments as tailored to their individual learning profiles, they are more likely to feel valued and supported throughout their educational journey. This sense of inclusion can significantly boost students' motivation and engagement in learning (Tomlinson, 2001).

In practice, differentiated assessment methods include flexible grouping, diverse task formats, and alternative evaluation approaches (Tomlinson, 2001). With these strategies, educators can effectively differentiate instruction to meet the needs of all students while upholding high academic standards and expectations (Tomlinson, 2001). Smith and Brown's study illustrates how such practices can be utilized to enhance knowledge and motivation while fostering a positive learning environment that empowers students in their educational endeavors (Smith & Brown, 2003).

Tomlinson and Moon (2013) conducted an extensive study on the benefits of formative assessment for diverse learners. They discovered that ongoing formative

assessment significantly enhances teachers' ability to identify and respond to specific learning needs. This proactive assessment practice not only boosts academic performance but also increases student engagement, highlighting the role of formative assessment within a differentiated instruction framework (Tomlinson & Moon, 2013).

Formative assessment, Brookhart, (2017) involves a range of strategies used by teachers to monitor student learning and provide on-going feedback that can be used to improve teaching and learning. This process contrasts with summative assessment, which evaluates student learning at the end of an instructional period. Tomlinson and Moon (2013) emphasized that formative assessment's iterative nature allows teachers to gather real-time data on student understanding, enabling them to make timely instructional adjustments. This responsiveness is particularly beneficial for meeting the diverse needs of learners, including those with varying levels of readiness, interests, and learning profiles (Tomlinson & Moon, 2013).

The findings of Tomlinson and Moon (2013) align with Hattie and Timperley's (2007) assertion that feedback is a fundamental component of effective instruction. Teacher feedback should be specific, timely, and formative, providing students with clear guidance on how to improve. When integrated into formative assessment, this feedback helps students understand their current levels of comprehension and what they need to do to advance their learning. Consequently, this approach fosters motivation and active engagement, as students recognize the connection between their efforts and their academic outcomes (Hattie & Timperley, 2007).

Moreover, Tomlinson and Moon (2013) highlight that formative assessment cultivates a classroom environment where teachers serve as both evaluators and supporters of learning. By regularly monitoring student progress, teachers can identify

misunderstandings and knowledge gaps while corrective measures remain feasible. This perspective is supported by research from Lui and Andrade (2022), which indicates that such practices lead to deeper learning outcomes, as students become active participants in the assessment process. Enabling self-assessment and reflection empowers students to better understand their learning objectives and take ownership of their academic performance (Lui & Andrade, 2022).

Additionally, Tomlinson and Moon (2013) stress the importance of differentiated instruction through formative assessment. This pedagogical approach ensures that all learners have access to tailored educational strategies, as it provides the necessary data to implement differentiated methods effectively. By incorporating formative assessment into instructional planning, teachers can create a more adaptive and responsive classroom environment that continuously evolves to meet the individual learning needs of each student (Tomlinson & Moon, 2013).

Research by Black and Wiliam (2018) further supports the idea that effective formative assessment can lead to equitable educational practices. Their findings reveal that when teachers effectively apply formative assessment techniques, students from low-income backgrounds make significantly greater academic progress compared to their peers whose teachers lack these skills. This underscores the necessity of using assessments to support and enhance the learning of all students, rather than merely tracking scores.

According to Heritage (2013), formative assessment refers to ongoing evaluations that provide actionable feedback for improving learning. This continuous feedback loop is distinct from summative assessments, which evaluate mastery at the conclusion of an instructional period. Research by Muho and Taraj (2022) specifically highlights that

formative assessment strategies, such as timely feedback and student self-assessment, empower teachers to make informed instructional choices that cater to individual student needs. Through reflective processes and collaborative goal-setting, teachers can help students better understand and take ownership of their learning objectives (Heritage, 2013).

Heritage (2013) also presents evidence suggesting that formative assessment not only drives academic achievement but also fosters educational equity. Quality feedback from formative assessments can help bridge the achievement gap by diagnosing specific supports for individual students who encounter structural barriers to learning. This aligns with the rationale proposed by Hattie and Timperley (2007), which posits that feedback plays a crucial role in enhancing students' learning and promoting educational equity.

Formative assessment routines facilitate differentiated instruction, enabling teachers to recognize and address the unique learning needs and preferences of their students. Tomlinson (2017) defines differentiated instruction as the adjustment of teaching methods based on students' readiness, interests, and learning profiles. By analyzing formative assessment results, teachers can ensure that all students receive the necessary support to master academic content (Tomlinson, 2017).

Furthermore, Lui and Andrade's (2022) study emphasizes that while formative assessment fosters a culture of continuous improvement in learning, it also enhances student engagement. Through active participation in self-assessment, students develop metacognitive skills and assume greater responsibility for their learning. This empowerment is vital for cultivating a positive classroom climate where all students feel valued and supported on their educational journey (Lui & Andrade, 2022).

## **2.7 Facilitating Socialization among Learners in Inclusive Classroom**

### **Environments**

Encouraging socialization among students in inclusive classroom settings is essential for creating a supportive and inclusive educational environment where every student feels valued and engaged (Smith, 2020). The primary goal of inclusive classrooms is to ensure that all students, regardless of ability, background, or learning needs, can learn together (Jones & Davis, 2019).

Fostering positive peer relationships is a key objective of socialization in inclusive classrooms. Such relationships are vital for students' social and emotional development (Brown & Thompson, 2018). Meaningful interactions promote a sense of belonging and alleviate social isolation for both students with and without disabilities (García & Ortiz, 2021).

Socialization also enables students to empathize with and relate to one another. As they interact with peers of diverse abilities and backgrounds, students cultivate empathy, tolerance, and respect for diversity (Clark & DeSimone, 2017). Experiencing diversity from an early age teaches children to become considerate and inclusive members of their communities (Roberts & Brown, 2020).

Classrooms that embrace all learners also facilitate collaborative learning. Group projects and peer tutoring are examples of collaboration that can enhance teamwork among students with varying skill levels (Nguyen & Vaidya, 2016). These interactions not only promote academic learning but also develop communication and problem-solving skills (Simpson & Payne, 2019).

Moreover, socialization in inclusive classrooms helps students build self-confidence and self-esteem. When students feel valued and respected by their peers, they are more likely to engage in classroom activities and take risks (Turnbull et al., 2015). This positive socio-emotional climate contributes to students' overall academic success and emotional well-being (Baker et al., 2020).

Teachers play a crucial role in facilitating socialization within inclusive classrooms. They can create social opportunities through cooperative learning and structured play (Booth & Ainscow, 2016). Additionally, educators enhance inclusion by fostering a classroom culture that respects diversity and promotes caring and shared purpose among students (Avramidis & Norwich, 2018).

However, enabling socialization in inclusive classrooms is not without challenges. Teachers may struggle to manage the diverse learning needs and behaviors present in group settings (Salend & Duhaney, 2017). Effective classroom management strategies, including clear expectations and differentiated teaching, are vital to ensuring an inclusive environment for all students (Forlin et al., 2019).

### **2.7.1 Importance of Socialization in Inclusive Classrooms**

Inclusive education is grounded in the principle of integrating children with disabilities and special needs into mainstream settings, promoting socialization as a fundamental aspect of their educational experience (Salend & Duhaney, 2016). Social learning is crucial for developing students' interpersonal skills, as well as their academic and emotional growth, providing them with a sense of acceptance and belonging within the classroom community (Scruggs & Mastropieri, 2002).

Salend and Duhaney (2016) emphasize that inclusive education aims to create environments where students with disabilities have equal opportunities to participate alongside their peers without disabilities. This integration is vital for fostering social interactions among a diverse range of students, which in turn encourages understanding and tolerance (Avramidis & Norwich, 2018).

The connections formed in inclusive classrooms extend beyond superficial interactions; they are foundational to academic success. Research indicates that students who feel accepted and included are more likely to engage in the learning process and achieve academically (Brown & Thompson, 2018). This supportive classroom climate significantly enhances students' overall educational experiences (Booth & Ainscow, 2016).

Furthermore, socialization contributes to students' emotional well-being by providing opportunities for friendship and support among peers within the school environment (Clark & DeSimone, 2017). This social support network is crucial for countering feelings of loneliness and isolation often experienced by students with disabilities (García & Ortiz, 2021).

According to the National Council on Disability (2000) report, Scruggs and Mastropieri (2002) highlight that inclusive classrooms benefit students without disabilities as well, teaching them empathy and appreciation for diversity. When students learn together in inclusive settings, they gain a broader perspective, recognizing differences in ability, culture, and background (Nguyen & Vaidya, 2016).

Successful socialization in inclusive classrooms does not occur automatically; it requires intentional effort from teachers. Educators play a crucial role in fostering an inclusive environment by implementing strategies such as cooperative learning, peer tutoring, and organized social activities (Forlin et al., 2019). These approaches not only enhance social interaction but also allow students to leverage each other's strengths and support one another's weaknesses (Jones & Davis, 2019).

### **2.8 Strategies to Facilitate Socialization Cooperative Learning Structures**

Research by Johnson et al. (2014) highlights the effectiveness of cooperative learning structures in promoting social interaction among students in inclusive classrooms. Cooperative learning involves structured instructional activities that encourage students to collaborate in small groups toward shared goals. This strategy fosters peer support, positive interdependence, and results in increased socialization and improved academic performance for all students.

According to Johnson et al. (2014), cooperation offers additional benefits in inclusive environments by bringing together students of diverse abilities and backgrounds. Working collaboratively toward common objectives teaches students to appreciate each other's competencies and contributions, thereby fostering mutual respect (Avramidis & Norwich, 2018).

Furthermore, cooperative learning contributes to the development of essential social competencies, such as communication, teamwork, and conflict resolution (Brown & Thompson, 2018). These skills are vital for students with disabilities to cultivate and maintain relationships within their classroom communities (Clark & DeSimone, 2017).

The organization of cooperative learning ensures all students can participate actively in group activities, regardless of their abilities (Booth & Ainscow, 2016). This inclusivity fosters a sense of fairness and belonging in the classroom, as every contribution is valued (Nguyen & Vaidya, 2016).

Additionally, academic achievement is enhanced through cooperative learning, as students articulate their understanding to peers and engage in meaningful discussions (Simpson & Payne, 2019). The peer-teaching aspect of cooperative learning not only validates learning but also boosts students' confidence in their academic abilities (Turnbull et al., 2015).

However, integrating effective cooperative learning in inclusive classrooms requires careful planning and support from educational professionals. Teachers are essential in facilitating these activities and monitoring group dynamics to ensure the inclusion of all students (Forlin et al., 2019). Clear criteria and expectations help students understand their responsibilities within the group and encourage accountability (Jones & Davis, 2019).

### **2.8.1 Peer-Mediated Interventions**

Peer-mediated interventions are inclusive programs where non-disabled peers are trained to assist and interact with children with disabilities or special needs (Guralnick, 2019). These programs promote social interaction, build friendships, reduce social isolation, and support the development of social skills for students with diverse abilities.

Guralnick's research indicates that peer-mediated interventions utilize peer relationships to foster positive social experiences for children with disabilities

(Guralnick, 2019). By integrating students with disabilities into typical peer groups, these interventions create opportunities for meaningful interactions and reciprocal learning (Avramidis & Norwich, 2018). The primary goal of peer-mediated interventions is to reduce isolation and enhance students' sense of belonging within the classroom. Structured activities, guided by educators, help non-disabled peers learn how to initiate and support interactions with their classmates with disabilities (Clark & DeSimone, 2017). This collaborative process not only enhances the social skills of students with disabilities but also cultivates empathy, acceptance, and understanding among all participants (Jones & Davis, 2019).

Moreover, peer-mediated interventions support the academic growth of students with disabilities by creating an environment that meets their learning needs. Research indicates that when students feel socially accepted and included, they are more motivated to engage in classroom activities and achieve academically (Brown & Thompson, 2018). This supportive social environment enhances the overall classroom dynamic and fosters a sense of belonging for all students (Booth & Ainscow, 2016).

Successful implementation of peer-mediated interventions requires training and support for both peers and teachers. Educators play a key role in guiding, modeling, and monitoring peer relationships (Forlin et al., 2019). Ensuring that peer-mediated exchanges are meaningful and beneficial for all students necessitates clear communication strategies and structured activities (Nguyen & Vaidya, 2016).

### **2.8.2 Social Skills Training Programs**

Effective social skills development relies heavily on engaging training models. According to Farmer and Cotter (2021), the most impactful social skills training programs concentrate on equipping students with specific abilities and behaviors vital

for successful social interactions. These programs generally utilize role-playing, modeling, and direct instruction to assist students in improving their communication, empathy, cooperation, and conflict resolution skills in inclusive classroom settings.

Recent studies conducted by Carter et al. (2017) underscore the considerable advantages of promoting socialization in inclusive classrooms, revealing a positive relationship between social interactions and both academic and social outcomes for students. Their research suggests that inclusive environments bolster the self-esteem, emotional health, and academic success of all students, including those with disabilities.

Carter et al. (2017) argue that encouraging social inclusion in these environments cultivates supportive contexts where students with disabilities are appreciated and accepted. Inclusive classrooms nurture a sense of belonging, helping to alleviate feelings of isolation by fostering meaningful peer interactions and friendships (Avramidis & Norwich, 2018).

In addition, social interactions within inclusive classrooms play a vital role in enhancing students' emotional well-being. Positive relationships with peers significantly affect students' happiness and resilience, which can alleviate stress and anxiety (Clark & DeSimone, 2017). The emotional support available in these settings aids students with disabilities in overcoming challenges and developing a positive self-image (Jones & Davis, 2019).

From an academic perspective, the desire to build social connections in inclusive classrooms encourages active engagement in various learning activities, facilitating collaboration among students with differing abilities (Booth & Ainscow, 2016).

Through group discussions, cooperative learning, and peer-assisted tasks, students sharpen their communication and critical thinking abilities (Nguyen & Vaidya, 2016). This collaborative framework not only enhances educational outcomes but also equips students for future social and professional relationships (Simpson & Payne, 2019).

The effective application of socialization strategies in inclusive environments demands careful planning and support from educators. Teachers are crucial in encouraging social interactions, fostering inclusive behaviors, and imparting essential communication skills (Forlin et al., 2019). By creating a positive classroom climate that appreciates diversity and mutual respect, educators can significantly impact both social and academic growth (Turnbull et al., 2015).

Improving socialization in inclusive classrooms is a collective endeavor that involves teachers, paraprofessionals, and families. This process requires establishing a supportive environment that celebrates diversity and promotes empathy among all students.

Parents and caregivers can provide insights into their child's strengths, preferences, and social challenges, which can inform educators' strategies and interventions (Forlin et al., 2019). Family engagement also promotes collaboration between home and school in reinforcing social skills and supporting students' social growth outside of the classroom setting (Nguyen & Vaidya, 2016).

Creating a positive classroom climate that values diversity involves promoting empathy and respect among students. Educators can incorporate activities that encourage students to learn about each other's backgrounds, interests, and abilities, fostering a sense of community and mutual understanding (Simpson & Payne, 2019).

These activities may include group projects, cultural celebrations, or discussions on inclusion and acceptance.

## **2.9 Environmental Adaptations Implemented by Teachers to Support**

### **Diverse Learners Needs**

Environmental adaptations implemented by teachers play a crucial role in supporting the diverse needs of learners in inclusive educational settings (Daśni Pinky, 2023). These adaptations encompass physical, instructional, and social-emotional adjustments that educators make to create inclusive learning environments where all students can thrive (Priyadharsini & Sahaya Mary, 2024).

One fundamental aspect of environmental adaptation in inclusive classrooms is the physical setup and organization of the classroom. Research by Scruggs and Mastropieri (2011) emphasize the importance of flexible seating arrangements to accommodate diverse learning styles and physical needs. For example, creating different learning zones within the classroom such as quiet areas for individual work, collaborative spaces for group activities, and sensory-friendly corners for students with sensory sensitivities can enhance engagement and learning outcomes (Scruggs & Mastropieri, 2011).

Scruggs and Mastropieri (2011) argue that flexible seating arrangements not only cater to the diverse learning needs of students but also promote inclusivity by providing options that support individual preferences and abilities. For students who thrive in quieter environments, designated spaces with minimal distractions can facilitate focused learning and concentration (Booth & Ainscow, 2016). Conversely, collaborative spaces equipped with group seating arrangements encourage interactive

learning experiences where students can engage in discussions, peer learning, and cooperative activities (Clark & DeSimone, 2017).

Moreover, the incorporation of sensory-friendly corners is particularly beneficial for students with sensory sensitivities or processing disorders. These areas are designed to provide a calm and controlled environment, equipped with tools like noise-canceling headphones, fidget toys, or soft lighting, which help students regulate sensory input and maintain emotional stability (Jones & Davis, 2019). By addressing sensory needs, educators create inclusive environments where all students can participate comfortably and actively in classroom activities (Nguyen & Vaidya, 2016).

Effective implementation of flexible seating and learning zones requires careful planning and consideration of students' individual needs and preferences. Educators play a crucial role in designing and organizing the classroom environment to maximize its functionality and accessibility (Forlin et al., 2019). Forlin et al. (2019) highlight that inclusive classroom environments should be designed with flexibility in mind, allowing for adjustments that cater to diverse learning styles, physical abilities, and sensory sensitivities.

Regular assessments of seating arrangements and learning zones are essential components of effective implementation. Teachers need to continually monitor how different seating configurations and learning environments impact students' engagement, comfort, and learning outcomes (Simpson & Payne, 2019). This ongoing assessment process enables educators to gather feedback from students, observe their interactions, and make informed decisions about adjusting the classroom setup to better meet their evolving needs (Booth & Ainscow, 2016).

Moreover, educators should involve students in the process of designing and arranging classroom spaces. By soliciting input from students about their preferences and comfort levels, teachers can foster a sense of ownership and empowerment among learners (Clark & DeSimone, 2017). This collaborative approach not only ensures that the classroom environment is inclusive and supportive but also promotes self-awareness and advocacy skills among students with disabilities (Jones & Davis, 2019).

Furthermore, professional development and training for educators are crucial to implementing flexible seating and learning zones effectively. Training sessions can provide teachers with strategies for creating adaptable classroom environments, addressing accessibility concerns, and managing diverse student needs (Nguyen & Vaidya, 2016). By enhancing educators' understanding of inclusive practices and classroom management techniques, schools can promote consistency and continuity in supporting students' academic and social development (Avramidis & Norwich, 2018).

Moreover, instructional adaptations play a significant role in addressing diverse learning needs. According to Tomlinson and Strickland (2005), differentiated instruction involves modifying teaching methods, materials, and assessments to cater to students' readiness, interests, and learning profiles. This approach ensures that all students have access to curriculum content at their appropriate level of challenge, promoting meaningful learning experiences and academic success (Tomlinson & Strickland, 2005).

Social-emotional adaptations are also critical for supporting diverse learners in inclusive classrooms. Research by Davis and Florian (2004) highlights the importance of creating a positive classroom climate that fosters emotional well-being and social

inclusion. Teachers can implement strategies such as peer buddy systems, cooperative learning activities, and explicit social skills instruction to promote peer relationships, empathy, and self-regulation among students (Davis & Florian, 2004).

Furthermore, technology integration offers valuable opportunities for environmental adaptation in inclusive education. Higgins and Boone (2020) discuss how assistive technologies, such as text-to-speech software, interactive whiteboards, and multimedia resources, can support diverse learners' access to curriculum content and enhance their engagement in learning activities. These technologies provide alternative means of participation and facilitate personalized learning experiences tailored to individual learning needs (Higgins & Boone, 2020).

Additionally, environmental adaptations encompass collaborative partnerships with families and community stakeholders. Research by Turnbull et al. (2007) emphasizes the importance of fostering inclusive practices that involve families in decision-making and educational planning. By establishing open communication channels and soliciting parental input, educators can better understand students' strengths, needs, and preferences, leading to more effective environmental adaptations that support student learning and development (Turnbull et al., 2007).

Moreover, Universal Design for Learning (UDL) principles offer a framework for designing inclusive environments that accommodate diverse learners' variability. According to Rose and Meyer (2002), UDL encourages educators to provide multiple means of representation, engagement, and expression to optimize learning opportunities for all students. By proactively designing curriculum materials, assessments, and instructional strategies that are flexible and accessible, teachers can

reduce barriers to learning and promote equitable educational experiences (Rose & Meyer, 2002).

Rose and Meyer (2002) emphasize that UDL is rooted in the recognition of learner diversity and the proactive design of learning environments that cater to varying needs and preferences. The principle of multiple means of representation involves presenting information in different formats such as visual aids, audio recordings, and tactile materials, ensuring that content is accessible to students with different learning styles and abilities (Booth & Ainscow, 2016).

Furthermore, providing multiple means of engagement encourages students to become actively involved in their learning by offering choices in how they access and engage with educational content. This approach includes incorporating interactive activities, collaborative projects, and personalized learning experiences that motivate and sustain student interest (Clark & DeSimone, 2017).

Additionally, multiple means of expression allow students to demonstrate their understanding and knowledge through diverse modes of communication. Educators can support students' expression by offering alternatives for demonstrating learning, such as oral presentations, written reports, digital media projects, or visual representations, accommodating individual strengths and preferences (Jones & Davis, 2019).

Effective implementation of UDL principles requires educators to collaborate with colleagues, students, and families to identify and address diverse learning needs. By conducting ongoing assessments and gathering feedback, teachers can adjust instructional strategies and materials to better meet students' evolving needs and

preferences (Nguyen & Vaidya, 2016). Professional development opportunities that focus on UDL provide educators with the knowledge and skills to apply inclusive practices effectively in their classrooms, promoting a culture of continuous improvement and equitable education (Avramidis & Norwich, 2018).

## **2.10 Summary of Review of Related Literature**

The literature review emphasizes the vital role of teacher collaboration with families, community stakeholders, and policymakers in implementing inclusive education effectively. Successful inclusive education requires a joint effort from teachers, parents, local communities, and policymakers to ensure that all children, regardless of their abilities, receive the support they need to succeed.

In the context of inclusive education, Universal Design for Learning (UDL) is highlighted as an effective approach to accommodate the diverse needs of learners. UDL is a framework that provides teachers with guidelines for creating flexible learning experiences that cater to all students, including those with disabilities. It emphasizes offering multiple means of representation, engagement, and expression, ensuring that learners can access information in ways that suit their individual learning styles.

## CHAPTER THREE

### METHODOLOGY

#### 3.0 Overview

This chapter presents the methodology used in the research. It includes the research paradigm, research approach, population, sample & sampling, technique data sources, instruments for data collection, the reliability and validity of these instruments, data analysis procedures, and ethical considerations.

#### 3.1 Research Paradigm

The researcher adopted a pragmatist framework for this study, which formed the basis for guiding the research process. Pragmatism involves the integration of various methods for data collection and analysis (Creswell & Plano-Clark, 2007). This approach challenges traditional views of "truth" and "reality" by focusing on the most effective strategies to address the research questions (Tashakkori & Teddlie, 2003). It connects qualitative research, which is adaptable, with quantitative research, which is more systematic and empirical (Tashakkori & Teddlie, 2003).

Pragmatism recognizes both objective facts and subjective experiences, advocating for a diverse array of methods to identify optimal solutions (Cherryholmes 2008, cited in Creswell, 2008). Through this pragmatic perspective, researchers can harness the benefits of both qualitative and quantitative methodologies, leading to a more comprehensive understanding of the research topic. For instance, qualitative methods provide detailed insights into participants' experiences, whereas quantitative methods offer measurable and generalizable data. The study took place in kindergarten classrooms, where interactions between teachers and preschoolers occurred in a natural setting. These environments were chosen to allow authentic observations of

teacher-student interactions. Given the established rapport between teachers and students, it was crucial to collect both quantitative and qualitative data to fully capture the dynamics involved. Quantitative data could encompass metrics related to student engagement or learning outcomes, while qualitative data might include observations of classroom interactions and interviews with both teachers and students.

Employing a pragmatist approach allowed the researcher to adjust research methods as needed to better respond to the research questions, which is a fundamental aspect of pragmatism. For example, if initial data collection revealed unexpected trends, the researcher could implement additional methods to further explore these patterns. This flexibility ensures that the research remains relevant and responsive to the complexities encountered in real-world settings.

Pragmatism also emphasizes the importance of practical solutions. In educational research, this translates into a focus on strategies that can improve teaching and learning in actual classrooms. By incorporating various methods, the researcher can identify effective practices rooted in both empirical evidence and the lived experiences of educators and students.

In this study, the pragmatist approach empowered the researcher to obtain a well-rounded perspective of kindergarten classrooms. Quantitative data provided an overview of trends and patterns, while qualitative data added context and depth to these findings. For example, quantitative results might suggest that certain teaching methodologies are linked to higher student engagement, while qualitative insights can clarify the reasons for this effectiveness through specific examples of teacher-student interactions.

By valuing both types of data, the researcher could develop more nuanced conclusions and offer practical recommendations. This comprehensive approach is particularly beneficial in educational research, where understanding the intricate interplay of factors affecting teaching and learning is crucial for developing effective interventions.

In summary, the pragmatist approach utilized in this study enabled the integration of qualitative and quantitative methods, facilitating a more thorough understanding of kindergarten classrooms. This methodology underscores flexibility, practical solutions, and the combination of diverse data types, making it especially suitable for educational research. By capturing both objective data and personal experiences, the researcher was able to present a rich and detailed depiction of classroom dynamics, along with actionable suggestions for improving teaching and learning practices.

### **3.2 Research Approach**

The study implemented a mixed methods approach to thoroughly address the research problem in accordance with the philosophical perspective. According to Creswell (2002), mixed methods research is characterized by the collection of both quantitative and qualitative data, the integration of these data types, and the use of various designs that may incorporate philosophical assumptions and theoretical frameworks. The primary premise of this research type is that combining qualitative and quantitative methodologies yields a more comprehensive understanding of the research topic than either method could achieve independently.

In support of this perspective, Johnson and Onwuegbuzie (2004) assert that mixed methods research leverages the strengths and insights of each approach while recognizing the significance of human experience and the physical, natural world.

Consequently, mixed methods research aims to provide a thorough and nuanced explanation of the research problem.

The mixed methods approach offers considerable benefits by addressing the limitations associated with both quantitative and qualitative techniques, each of which has unique strengths and weaknesses (Creswell & Plano-Clark, 2007). Moreover, this approach enables a broader range of research questions to be explored (Johnson & Onwuegbuzie, 2004). Additionally, employing a mixed methods strategy can enhance insights into the data that might otherwise be overlooked when relying solely on one methodology. This approach can also increase the generalizability of a study's findings (Johnson & Christensen, 2012) and requires the researcher to be skilled in both quantitative and qualitative data collection and analysis (Creswell & Plano-Clark, 2007).

Conducting research with a mixed methods approach involves the collection, analysis, and integration of both quantitative and qualitative data. This methodology is applied when the combination of data leads to a deeper understanding of the research problem than either quantitative or qualitative data alone (Creswell, 2008). Quantitative data, for example, might include closed-ended information such as surveys and performance assessments using Likert scales to measure teachers' attitudes toward specific behaviors. Scores obtained from instruments like questionnaires or checklists are statistically analyzed to address research questions or test hypotheses (Creswell, 2002). Gay and Airasian (2000, p. 5, 11) highlight that quantitative research focuses on collecting and analyzing numerical data, which is used to describe current conditions, examine relationships, and investigate cause-and-effect phenomena. McMillan and Schumacher (2006, p. 117) detail essential components of effective

quantitative design, including subject selection, identification of data collection techniques, articulation of data gathering procedures, and treatment implementation procedures, while stressing the importance of following principles that enhance research quality.

Conversely, qualitative data consists of open-ended information generally gathered through interviews, focus groups, and observations. The analysis of qualitative data typically involves organizing it into categories and showcasing the diversity of insights obtained during the data collection process (Creswell, 2002).

### **3.3 Research Design**

The research design chosen for this study was the concurrent mixed-methods design. This design involves the simultaneous collection and analysis of both quantitative and qualitative data, aiming to provide a comprehensive understanding of the research issue (Hirose & Creswell, 2023). In this study, quantitative data were gathered through questionnaires, while qualitative data were collected via interviews and observation checklists. The two types of data were analyzed separately, and their findings were compared and integrated to derive insights into inclusive education practices among teachers in early grade centers within the Tamale Metropolis. This design was selected as it allowed for the collection of diverse data types, enabling the researcher to examine both the breadth (through quantitative data) and depth (through qualitative data) of inclusive education practices in the Tamale Metropolis. The concurrent design also facilitated cross-validation of findings, thereby enhancing the reliability and validity of the results. The simultaneous collection of data from both sources allowed the researcher to corroborate and enrich findings from multiple

perspectives, providing a richer and more comprehensive view of the research problem (Creswell & Creswell, 2017).

The quantitative data provided measurable information that could be analysed statistically to identify trends and patterns. This approach is particularly beneficial for understanding the extent to which certain assessment practices are used, as well as identifying the overall distribution of various assessment types among a larger population (Mohajan, 2020). Quantitative data is often seen as more objective and generalizable, making it useful for establishing broad patterns across a sample. For example, questionnaires allowed for the collection of numerical data on the practices teachers use to foster inclusive education in early childhood centres.

On the other hand, the qualitative data offered deeper insights into the teachers' and head teachers experiences, perceptions, and challenges related to their practice of inclusive education in early childhood centres. Qualitative research is particularly effective in exploring complex phenomena, such as teachers' decision-making processes and their experiences with the challenges of implementing inclusive practices in early childhood centres. Through interviews, the study was able to capture the nuances of how head teachers perceive inclusive education and how it is being implemented in their schools. This approach aligns with the work of Hennink et al. (2020), who highlighted the strength of qualitative methods in uncovering the underlying reasons behind teachers' practices and beliefs.

The use of a Concurrent Mixed-Methods Design in this study was justified by its ability to provide a comprehensive and holistic understanding of the research problem (Tashakkori & Teddlie, 2003). By collecting and analysing both types of data, the researcher was able to obtain a more complete picture of inclusive education practices

in early childhood centres in the Tamale Metropolis, capturing both the quantitative trends and the qualitative experiences of teachers. This approach allows for the integration of the strengths of both methodologies, which is especially valuable when studying complex educational issues like assessment practices (Johnson & Onwuegbuzie, 2004).

Moreover, using both methods allowed for triangulation, a process where different data sources and types are used to cross-check and validate findings. Triangulation enhances the validity of the study by ensuring that the results are consistent across different types of data, providing greater confidence in the conclusions drawn (Denzin, 2012). This method was particularly important for this study, where a mixed-methods design could address both the quantitative breadth and qualitative depth needed to fully understand the inclusive education practices of early childhood teachers in the Tamale Metropolis.

Concurrent Mixed-Methods Design was chosen for its ability to offer a comprehensive, reliable, and valid examination of the inclusive practices used by kindergarten teachers in the Metropolis, drawing on the strengths of both quantitative and qualitative approaches. This design was particularly well-suited to the study's objectives, allowing for a nuanced and well-rounded understanding of the inclusive education practices in early childhood centres in the Tamale Metropolis.

### **3.5 Population**

The population for this study comprised all teachers in the Tamale Metropolis. However, the study specifically targeted early childhood teachers. The target population included all early childhood teachers in the Tamale Metropolis, totaling 733 teachers. Out of this number, the accessible population consisted of 346

kindergarten teachers, who were readily available and accessible to the researcher during the study period.

From this accessible population, a total of 141 respondents were sampled for the study. These comprised 122 early childhood teachers who participated in the quantitative component of the study through questionnaire administration, 14 teachers who were selected for classroom observations, and 5 head teachers who participated in the qualitative interviews.

The population of head teachers for the study consisted of all head teachers managing early childhood centres within the Tamale Metropolis. From this group, five (5) head teachers were purposively selected for the qualitative interviews. The criteria used in selecting the head teachers included their leadership roles, years of experience as head teachers, and their direct involvement in the supervision and management of early childhood education programmes. These criteria ensured that the selected head teachers possessed adequate knowledge and experience to provide in-depth and relevant information on inclusive education practices in early childhood centres within the Metropolis.

### **3.6 Sample and Sampling Techniques**

A total of one hundred and forty-one (141) respondents were sampled from 15 circuits within the Tamale metropolis, which were made up of Banvim, Dabokpa, Hospital Road, Aboabu, Changli, Gumbihini, Kaladan, Lamashegu, Sakasaka, Salaga Road, Zogbeli, Kpanvo, Kumasi Road, Nyohany, and Yendi Road circuits for the study.

### **3.6.1 Sampling technique**

The study sampled a total of one hundred and forty-one (141) respondents from fifteen (15) educational circuits within the Tamale Metropolis, namely Banvim, Dabokpa, Hospital Road, Aboabu, Changli, Gumbihini, Kaladan, Lamashegu, Sakasaka, Salaga Road, Zogbeli, Kpanvo, Kumasi Road, Nyohany, and Yendi Road. The sample comprised early childhood teachers and head teachers from kindergarten centres in the Tamale Metropolis.

A multi-stage sampling technique was employed, combining quota sampling, simple random sampling, and purposive sampling, in line with the mixed-methods design of the study. Quota sampling was first used to determine the number of early childhood teachers selected from each circuit to ensure proportional representation. Based on this, ten (10) teachers were selected from six circuits, while nine (9) teachers were selected from the remaining nine circuits, resulting in a total of 141 respondents.

Following the allocation of quotas, simple random sampling was used within each circuit to select early childhood teachers. This approach ensured that all teachers within the circuits had an equal chance of being selected, thereby reducing selection bias and enhancing the representativeness of the quantitative sample.

For the qualitative phase, purposive sampling was used to select participants capable of providing in-depth information relevant to the study objectives. Five (5) head teachers were purposively selected for interviews based on their leadership roles and years of experience in managing early childhood centres, as these positions enabled them to provide informed insights into inclusive education practices and school-level challenges.

Additionally, fourteen (14) early childhood teachers were purposively selected for classroom observations. These teachers were chosen based on their teaching experience, exposure to diverse learners, classroom responsibility, and use of varied instructional strategies. The number was considered adequate to allow for detailed observations across different classroom contexts while remaining manageable for in-depth qualitative analysis.

### **3.7 Instruments for Data Collection**

The study used a structured questionnaire, an observation checklist, and a semi-structured interview guide. A set of questions was administered to teachers to give their varying experiences and information geared towards answering the research questions. The study employed a questionnaire to gather the data for the investigation by looking at the technical review and thinking about the different parts that were included in the research questions. From there, questions formed that were believed to be relevant to the study objectives. A four-point Likert scale was used in most problems, except the open-ended ones. Efforts were made to avoid being ambiguous, using slang, asking leading questions, and so on to create a high-quality questionnaire, which helped in providing as accurate information as possible. The inquiry began with a small introduction and explanation of how to answer the questions. The open-ended questions were included to pick up on information that might have been overlooked or might otherwise be important for the organization.

With respect to the qualitative data, in-depth interviews were considered suitable for data collection, Lincoln (2010) deemed appropriate for this study as it sought to explore the experiences of teachers and other officials in inclusive education in the selected districts.

The use of interviews also permitted the researcher to attain reality by being absorbed with the teachers and other respondents to comprehend the environment and its participants. According to Rashid and Rasheed (2022), key informant interview supplements the research information since the questionnaire sample is often of a small size, and to enable participation. The semi-structured interviews were adapted for this study to allow questions that suit the diversity of the respondents to be asked. During the interviews, a digital voice recorder was used to record after seeking consent from respondents.

The observation checklist was used to systematically gather data on teacher inclusive education practices in early-grade centres in the Tamale Metropolis. The checklist aimed to capture specific behaviors and actions that demonstrate inclusive teaching practices, focusing on lesson adaptation, diverse teaching materials, student participation, welcoming environments, and individualized support.

Observers were trained to use the checklist accurately and consistently. They visited various early grade centres, observing different classroom settings and teaching practices. During each visit, observers recorded their observations in real time, checking off items on the checklist as they observed corresponding behaviors or actions and making short notes to provide additional context or details.

To ensure reliability, multiple observers sometimes visited the same classroom and compared checklists to match their observations. This process helped ensure accurate and consistent data.

Examples of data collected included:

**Lesson Adaptation:** Observers noted if teachers adapted lessons to include all students by using different teaching methods or providing extra help.

**Diverse Teaching Materials:** Observers checked if teachers used materials representing different cultures and abilities, such as books and pictures showing people from various backgrounds.

**Student Participation:** Observers looked for evidence that teachers encouraged all students to participate in activities, giving every student a chance to speak, answer questions, or join in group work.

**Welcoming Environment:** Observers noted if the classroom was accessible and welcoming to all students, including the arrangement of desks, availability of resources, and overall classroom atmosphere.

**Individualized Support:** Observers recorded instances where teachers provided extra support to students needing it, such as one-on-one help, modified assignments, or additional resources.

After the observations, data from all checklists were compiled, counting how often each item was checked off and summarizing the notes made by observers. Patterns and trends were analyzed to determine how often teachers adapted lessons or used diverse teaching materials. The findings were reported, highlighting strengths and areas for improvement in inclusive education practices.

Using an observation checklist provided valuable insights into how teachers implemented inclusive education, highlighting areas where further support or training

might be needed. The consistent and objective data collection helped create a reliable picture of inclusive practices in the Tamale Metropolis.

### **3.8. Administration of the Research Instruments**

#### **3. 8. 1. Questionnaire administration**

Before administering the instrument, the researcher visited the participating schools in the Municipality where I double as a tutor, with a letter of introduction from the Head, Department of Early Childhood Education, University of Education, Winneba. Before the commencement of the administration of the research instruments, permission was sought from the school head teachers to conduct the study with the teachers. Although the respondents were implored to respond to all the questions in the questionnaire, their preference not to answer particular question(s) was also considered their right. The study ensured that names of respondents were withheld as part of the initial rapport processes for confidentiality purpose (Refer to Appendix C).

The questionnaire was administered personally. The advantage of this is summarized by Osuala (1982) that the researcher has the opportunity to brief respondents to understand exactly what the items mean so as to obtain the right responses.

It is ethical in research to assure respondents of their confidentiality and anonymity, hence the questionnaire was accompanied with a cover letter to this effect and to crave the respondents' maximum co-operation. The letter also indicated a one week period within which respondents were requested to complete the questionnaire. After the one week period, the researcher went back to the respondents to collect the completed questionnaires. Three respondents whose questionnaires were not ready at that time, owing to their absence from school, were given an extra week to fill them. There were some follow-ups to remind respondents to get the questionnaire ready.

The questionnaires recorded 73 % return rate of questionnaires were returned eventually.

### **3.8.2 Interviews guide**

The second form of data collection was the teachers' interviews and observation, following the successful collection and analysis of all the 122 questionnaires administered. After the analysis of the data, five (5) head teachers in charge of the early childhood centres in the Metropolis were purposively sampled using the saturation principle and interviewed to validate the quantitative results. According to Sebele-Mpofu (2021), the saturation principle is defined as when responses from participants sampled for a study no longer produce any new idea or outcome. The purposive sampling was employed because, according to Boateng (2016), purposive sampling is conducted to sample respondents who have ideas, knowledge, expertise, and experience about the phenomenon under study. The purpose of using the interviews actively allows the teachers to revisit and reflect on what they had been doing and saying in their classroom.

### **3.9 Procedure for the Interviews**

I adopted an interview schedule approach. The advantage of interviews schedule is that an interviewer has predetermined questions and that the order of those questions can be modified. The researcher decided the sequence and wording of questions during the interview. Based upon my perception of what seemed most appropriate, the question wording was changed and explanations given; particular questions that seemed inappropriate with a particular interviewee were omitted or additional ones included (Robson, 2023). Nair (2023) argued that the interview schedule is a guided interview approach. The characteristics of this approach are that the topics and issues

covered were specified in advance in an outline. This outline increases the comprehensiveness of the data and makes data collection somewhat systematic for each respondent. Moreover, the interview-style with a planned focus in advance allowed the researcher to efficiently use the time as an interviewer.

However, before conducting the interviews, the researcher gave each person a detailed description of the study, and all those approached signed the ethics consent form (Refer to Appendix D). Five (5) head teachers in the Municipality fully cooperated and showed interest in contributing to the study. Each signed a consent form, and they were informed that they could withdraw at any point during the data collection phase. The researcher also explained to the teachers that participation was optional and that they could withdraw before the interview took place. These interviews were all conducted separately. The interviews lasted for about 30-40 minutes and took place at the teachers' place of work, either before the school day began or at the end of the school day, according to the teachers' preferences. Questions in the interview protocol were used to gather more in-depth information regarding the early year's teachers' views about their role in inclusive education in the classroom. The interviews were MP3 digitally recorded. They were transcribed using the 'clean transcript' approach described by Velardo and Elliott (2021), where unnecessary words or sounds are not included. Finally, the transcripts were returned to the interviewees in order for them to check the meaning. This process is for 'member *checking*' (Mckim, 2020).

### **3.10 Analysis of Quantitative Data**

The analysis of quantitative data involves using statistical methods to analyse numerical data and draw conclusions about the research question. In this study, the

quantitative data collected through the closed-ended questionnaire were analysed using descriptive statistics such as Frequencies and percentages. These statistics were used to describe the participants' responses to the questions and provide a quantitative summary of the data. These data were initially coded and processed using Statistical Package for Social Sciences (SPSS) software. The data was cleaned, coded, and entered into the software for analysis. The results were presented in tables, graphs, and charts to make it easy to understand and interpret. The findings from the quantitative analysis were used to answer the research questions and objectives of the study.

### **3.11 Pilot Test**

A pilot test was conducted in ten (10) kindergarten schools to ensure the reliability and effectiveness of the questionnaires. The responses were analysed using Cronbach's alpha, a statistical method that measures internal consistency. The obtained reliability coefficient was .886, indicating a good level of reliability, meaning the questions consistently measure the concept of inclusive education. The pilot test helped identify any issues with the questions, tested the administration procedures, and confirmed the reliability of the questionnaire.

The pilot test demonstrated that the questionnaire is a reliable tool for measuring inclusive education practices in early childhood centres. The Cronbach's alpha coefficient of .786 shows that the research instruments are dependable and can be confidently used in the main study to gather valid and trustworthy data.

### **3.12 Analysis of Qualitative Data**

The analysis of the qualitative instrument involves the process of organizing, categorizing, and interpreting data collected through interviews. The goal of

qualitative analysis is to gain a deep understanding of the experiences, perspectives, and behaviour of the research participants.

The first step in analysing the qualitative data was that the researcher transcribes the interviews. Then, the researcher read through the transcripts several times to gain a general understanding of the content. The next step was that the researcher identified some common themes and patterns in the data and organized them into categories. This process was done manually by the researcher.

Once the data were organized into categories, the researcher began interpreting the findings. This involves examining the relationships between the categories, looking for patterns and connections, and comparing the findings to existing theories or concepts.

It is important to note that the analysis of qualitative data is subjective and dependent on the researcher's interpretation of the data. Therefore, it is important to maintain transparency in the analysis process by documenting the steps taken and ensuring that the findings are grounded in the data.

### **3.12 Validation of Quantitative Data**

Validity refers to the extent to which an instrument accurately measures what it is intended to measure. To ensure the validity of the questionnaire, content and face validity were established. The questionnaire items were developed based on the study objectives and a comprehensive review of relevant literature on inclusive education practices.

In addition, the instrument was reviewed by experts in early childhood education and research methodology to assess the clarity, relevance, and appropriateness of the

items. Their feedback led to modifications in wording and structure to ensure that the items adequately captured teachers' inclusive education practices. This process ensured that the questionnaire measured differentiated instruction, assessment practices, socialization strategies, and environmental adaptations as intended.

### **3.13 Reliability of the Quantitative Instrument**

Reliability refers to the consistency and stability of an instrument in measuring a construct. To ensure the reliability of the questionnaire, a pilot test was conducted in ten (10) kindergarten schools that were not included in the main study.

The responses from the pilot test were analyzed using Cronbach's alpha to determine internal consistency. The reliability coefficient obtained was **0.886**, indicating a high level of reliability. This result suggests that the items on the questionnaire consistently measured inclusive education practices.

Based on the pilot test results, minor adjustments were made to improve clarity and consistency. The high Cronbach's alpha value confirmed that the questionnaire was a reliable instrument and suitable for use in the main study to generate dependable and trustworthy quantitative data.

### **3.14 Trustworthiness of Qualitative Data**

#### **3.14.1 Confirmability**

Confirmability is a key concept in research that means the study's findings should be shaped by what participants say and not by the researcher's own biases, motivations, or interests. To ensure this, I followed several important steps during my research.

Firstly, I maintained detailed records and notes throughout the entire data collection and analysis process. This meant keeping careful documentation of how data was

gathered, what methods were used, and how I analyzed the information. By doing this, I created a clear and transparent record of my research activities, which helps to show that my findings are based on the data and not influenced by personal biases.

Secondly, I used direct quotes from participants in my study to support my findings. This means I included actual words and statements from the people I studied to back up the results. Using participants' own words helps to ensure that the findings accurately reflect their views and experiences, rather than being shaped by my own interpretations.

Additionally, to further confirm that my findings were based on the data and not on my own opinions, I asked a colleague to review my results. This colleague was someone who was not involved in the research but had experience in the field. They checked my findings to ensure that they were derived from the data collected and not influenced by my personal views.

### **3.14.2 Dependability**

Dependability in research means that the findings should be consistent and that the study could be repeated by others to achieve similar results. To ensure dependability in my research, I took several important steps:

I kept an audit trail, which is a detailed record of all the notes, records, and documentation related to the research process. This included everything from how data was collected to how it was analyzed. By maintaining this comprehensive record, I provided a clear and transparent account of the research process that others can review.

I applied consistent methods for data collection and analysis throughout the study. This means that the same procedures and techniques were used consistently to gather and analyze data. Consistency in these methods helps to ensure that the findings are reliable and not influenced by changes in how data was collected or analyzed.

I provided a detailed description of the methods used in the study. This included explaining how data was collected, what tools or instruments were used, and how the data was analyzed. By providing this level of detail, I made it possible for other researchers to follow the same steps and replicate the study, which further supports the dependability of the findings.

### **3.14.3 Transferability**

Transferability refers to how well the findings of a study can be applied to other contexts or groups beyond the specific study setting. To ensure transferability in my research, I implemented several strategies:

I offered comprehensive descriptions of the research context, participants, and methods used in the study. This means I described the setting where the research took place, the characteristics of the participants, and the procedures followed in detail. By doing so, I provided enough information for others to understand the specifics of the study and to evaluate whether the findings might be relevant to similar settings or groups.

The detailed descriptions included the background and environment of the research, the demographics of the participants, and the particular conditions under which the study was conducted. This rich contextual information helps others assess whether the findings could be applicable to different environments or populations.

I compared the results of my study with existing literature to identify similarities and differences. This comparison helps to position the study within the broader research landscape and shows how the findings align with or diverge from previous research. It also helps in understanding how the study's results might be relevant to other contexts based on existing knowledge.

#### **3.14.4 Credibility**

Credibility in research means that the findings are believable and accurately represent the participants' views. To ensure the credibility of my research, I employed several key strategies:

I used triangulation by gathering data from multiple sources, such as interviews, observations, and documents. This approach involves cross-checking and validating the findings against different types of data. By comparing information from various sources, I was able to confirm the accuracy and reliability of the findings, which helps to ensure that they are representative of the participants' views.

I conducted member checks by sharing the findings with the participants. This process involves presenting the results to the people who provided the data and asking them to review and confirm that the findings accurately reflect their perspectives and experiences. Member checks help to validate the findings and make sure that the research accurately represents what participants intended to convey.

I spent sufficient time in the field to fully understand the context and build trust with the participants. Spending more time in the research setting allowed me to observe and interact with participants more deeply, which helped to gain a better understanding of their perspectives and experiences. Building trust with participants

also facilitated more open and honest communication, further enhancing the credibility of the data.

### **3.15 Ethical Considerations**

Ethical considerations are critical in any research study to ensure that the participants are treated with respect, dignity, and confidentiality.

Informed consent was obtained from all participants, including the parents of the learners, before any data was collected. Participants were informed about the purpose of the study, their roles in the study, the expected duration of the study, and the benefits of participation. They were also informed that participation in the study was voluntary and that they could withdraw from the study at any time.

Confidentiality was also ensured throughout the study. The names of the participants and the schools were kept confidential to protect their identity. Only the researcher had access to the data, and the data collected was only used for the purposes of the study.

Additionally, the researcher ensured that the study did not cause any harm to the participants. The researcher made sure that the data collection process did not interfere with the learners' learning process and that the questions asked were not sensitive or personal.

Finally, the researcher ensured that the study was conducted in accordance with the ethical principles, including respect for persons, beneficence, and justice.

In conclusion, ethical considerations are essential in any research study to ensure that participants are treated with respect and dignity. The researcher ensured that all ethical considerations were taken into account during data collection to protect the participants' welfare and privacy.

## CHAPTER FOUR

### DATA ANALYSIS AND DISCUSSION

#### 4.0 Overview

This chapter presents data analysis, findings, presentation and interpretation of findings.

#### 4.1 Demographic Data of Respondents

This section of the analysis focuses on the demographic data of the respondents which includes gender, age, educational qualification, rank, experience as well as their teaching level of respondents.

**Table 1: Demographic Information of respondents**

<b>Gender</b>	<b>Frequency</b>	<b>Percentages</b>
Male	60	42.5
Female	81	53
<b>Total</b>	<b>141</b>	<b>100</b>
<b>Age Range</b>		
25-30	60	42.5
31-40	50	35.5
41-50	31	22.0
<b>Total</b>	<b>141</b>	<b>100</b>
<b>Academic Highest Qualification</b>		
Diploma Certificate	47	33.3
Bachelor's Degree	70	49.7
Master's Degree	24	17.0
<b>Total</b>	<b>141</b>	<b>100</b>
<b>Teaching Experience in KG</b>		
1-5	35	24.8
6-10	60	42.6
11-15	20	14.2
16-20	14	9.9
More than 20 years	12	8.5
<b>TOTAL</b>	<b>141</b>	<b>100</b>

**Source: Field Data, (2024).**

The dataset provides demographic and professional characteristics of a group of 141 individuals, categorized by gender, age, academic qualification, and teaching experience on early childhood teachers within the Tamale Metropolis. Among the participants, 60 (47%) are males, while 81 (53%) are females, indicating a female majority. The age distribution reveals that the majority of individuals 60(34%) fall within the 25-30 age bracket. This is followed by 50 (26%) aged 31-40, while 31(17%) are between 41-50 years old. The remaining portion is presumably older than 50 or younger than 25. Regarding educational background, the largest group 70 (46%) holds a Bachelor's Degree. A significant proportion 47 (26%) possess a Diploma Certificate while a smaller number 24 (3%) have obtained a Master's Degree. Most participants have 6-10 years of KG teaching experience 60 ( 43%). This is followed by 1-5 years of experience 35 (20%). A smaller portion has 11-15 years 20 (10%) and 16-20 years 14 (14%) of experience. Only 12 (4%) have been teaching for more than 20 years.

Overall, the dataset highlights a predominantly young workforce, with a balanced gender distribution, most holding a Bachelor's Degree and having 6-10 years of teaching experience.

#### 4.2 Research Question One: How do teachers differentiate instructions for diverse learners in early childhood centres in the Tamale Metropolis?

**Table 2: Differentiated instructions for diverse learners in early childhood centres**

<b>STATEMENT</b>	<b>SA</b>	<b>A</b>	<b>SD</b>	<b>D</b>	<b>TOTAL</b>
Teachers use various instructional materials to cater to different learning styles.	39(32)	78(64)	2(2)	3(2)	<b>122(100)</b>
Teachers adjust the pace of their lessons based on individual learners' needs.	41(34)	73(60)	1(1)	7(6)	<b>122(100)</b>
Teachers use small group instruction to address the needs of diverse learners.	27(22)	71(58)	12(10)	12(10)	<b>122(100)</b>
Teachers incorporate visual aids to support various learning styles in their lessons.	40(33)	58(48)	7(6)	17(14)	<b>122(100)</b>
Teachers adapt classroom activities to be inclusive of all learners, including those with special needs.	36(30)	67(55)	9(7)	10(8)	<b>122(100)</b>
Teachers regularly assess individual progress to tailor instruction accordingly.	39(32)	74(55)	8(7)	7(6)	<b>122(100)</b>
Teachers use differentiated questioning techniques to challenge learners at various levels.	44(36)	69(57)	2(2)	7(6)	<b>122(100)</b>
Teachers create flexible groupings to facilitate peer learning and support.	41(34)	67(55)	7(6)	7(6)	<b>122(100)</b>
Teachers use technology to provide personalized learning experiences for diverse learners.	22(18)	30(25)	30(25)	40(33)	<b>122(100)</b>
Teachers receive adequate training on differentiating instruction for diverse learners.	25(21)	22(18)	36(30)	39(32)	<b>122(100)</b>

**Source: Field Data (2024).**

The survey results revealed important insights into how teachers address the diverse needs of learners, specifically through differentiated instructional practices. The majority of teachers 117 (96%) agree that they use various instructional materials to cater to different learning styles, highlighting an understanding of the importance of accommodating diverse learning preferences (Tomlinson, 2014). Additionally, 114 (94%) of teachers reported adjusting the pace of lessons based on individual learner needs, showing their commitment to ensuring that every student learns at their own pace, which is crucial for effective learning outcomes (Hattie & Timperley, 2007). Small group instruction is another common strategy, with 98(80%) of teachers incorporating it to address diverse learners' needs, which research has shown is effective in providing more personalized attention and fostering peer learning (Hopkins, 2023). The use of visual aids is also prevalent, as 98(91%) of teachers agree that visual supports are essential for aiding comprehension, especially for students with different learning needs (Gay, 2021).

Moreover, 98(81%) of teachers adapt classroom activities to include learners with special needs, reflecting the inclusive mind-set that is vital in creating equitable learning opportunities (Ainscow, 2020). Regular assessment of individual progress is emphasized by 90% of teachers, showing a strong alignment with the need to tailor instruction based on learners' unique abilities (Tomlinson, 2017). Differentiated questioning techniques, which challenge students at various levels, are used by 98 (91%) of teachers, demonstrating their ability to engage students with varying levels of understanding (Hattie & Timperley, 2007). The creation of flexible groupings for peer learning is also widespread, with 117(96%) of teachers employing this strategy to facilitate collaboration and support among students (Hopkins, 2023). However, the use of technology to provide personalized learning experiences received mixed

responses, with 40(33%) of teachers expressing dissatisfaction, suggesting that more support and resources may be needed to effectively integrate technology into personalized learning (UNESCO, 2017). Finally, while 50(43%) of teachers report receiving adequate training on differentiating instruction, 64% indicate that more training is required, highlighting the need for on-going professional development to enhance teachers' capacity to differentiate instruction effectively (Ismaili & Imami, 2018). These findings underline the commitment of teachers to inclusive education, but also point to areas, such as technology integration and professional training, where further attention is needed to strengthen differentiated practices in classrooms.

Regarding research question one, head teachers were interviewed on how teachers differentiate instructions for diverse learners in early childhood centres in the Tamale Metropolis

### **Theme: Understanding the unique needs of learners**

One of the head teachers mentioned that,

*Most of the time, teachers use different learning materials in order to target the students' needs. Some of them who are low learners, others are fast, and others are medium. So normally, you give them different assessments in order to target the fast learners and low learners so that they can be able to achieve their learning needs and goals.*

Another head teacher mentioned that;

*You know, as a classroom teacher, first of all, you need to know your learners before you start teaching them. So after introducing yourself, knowing who the learners are, but always along the line, you observe those who have challenges. Like, for instance, there's a child who you observe is not seeing well on the graph on the board. You have to bring the child forward. There are others who sleep in class. So if you observe or you try to identify their challenges and address it and address them accordingly.*

Another head teacher asserted that;

*These are the basic things that you can use to determine children's learning styles. You know, they have different degrees of understanding, lessons, whenever you are teaching a child. You use a test. After teaching them, you can test them to see their level of understanding. Some of them, it is two questions that they can give you direct answers, or any other answer that you think is related to what you have taught them. At times, you give them a written exercise, which you can also use to assess their understanding of the lesson.*

*One of the head teachers commented that actually, you know, some learners are very slow and others are fast learners. So with this information, I think the remedial lesson can help the slow learners.*

**Theme: Providing diverse and accessible learning resources**

**One of the head teachers mentioned that,**

*As I earlier said, the fast learners use different resources for them compared to the low learning capability students. The fast learners, in terms of learning resources, they can use the ordinary textbooks so that those who don't understand much can use other supportive materials to their textbooks so that they can be able to cope up with the rest of their colleagues. Okay.*

*Apart from the textbooks, we also use self-designed teaching learning materials, depending on what lesson we are going to teach.*

Another head teacher mentioned that;

*The materials that we normally use. At the basic level, we use basically letter cards, word cards, sentence cards, but lower primary. We normally use the letter cards. When it comes to mathematics, we use number cards to teach them. After drilling them on the board, taking them through 1, 2, 3, A, B, C, we let them know the names and then the sounds of each letter, from A to Z. So we normally use the charts, A to Z. We teach them, normally we start with the songs. The number, A, B, C songs. Take them A, B, C, D, up to Z, and we drill them over and over. After which we show the letters to them on cards. If they are able to identify it on the cards, then we then build on the sounds. So basically, at the*

*lower primary, we use letter cards, word cards, and sentence cards.*

One head teacher stated that;

*First of all, the teaching aids or resources should be placed in the classroom, like word cards and other materials, so that the children can have easy access to them. The teaching aids and the teaching resources.*

In the same way another head teacher also commented that;

*Test books. In predominantly an area where we don't have access to this IT, test books are some of the things that we mostly rely on. Teachers, some of the teachers, they use their phone maybe to be able to research on some of the easy ways to help the children have access to their learning.*

### **Theme: Grouping students according to their ability levels**

#### **One of the head teachers mentioned that;**

*Students in the process of their own learning is grouping them into their colleagues, grouping them with their colleagues so that sometimes they learn better from their own colleagues than in the classroom. So, though you can use differentiated learning for them, most of their colleagues are fast learners. You mix them with their low learners.*

Another head teacher also said that;

*Yeah. So in trying to know the ability level of students, sometimes you use group learning activities, individual methods of teaching and what have you. When you try to know the pace of learners, you have to involve them.*

In the same way, another head teacher also said that;

*In differentiating instructions, as I've already told you, they learn at their different levels of capacity. So whenever you teach them in the learning process, when you tell them maybe to lead their colleagues on the board to come out, maybe individually or in groups, normally you teach them as a whole class. After teaching them as a whole class, you put them into groups. From the groups, you can know the levels of each student. So when you let them lead their colleagues, after choosing the individual learners, drilling*

*them through, you also let each of them, if they are in groups of five or three, you'll be able to identify the one who is good among them, after which you let them do it individually. It is true that you can assess the differences in their learning. It is there that you can also put them into different groups according to their ability. So basically, you teach them as a group, as a whole class, and then later on in groups. From the group level, you can then separate them according to their levels. You teach them to get time to attend to each student in the classroom.*

Similarly, one head teacher mentioned that;

*That's why I'm saying that it should be placed in the classroom, so that you can put it on the walls. You can even put it before the children during lesson hours, so that they will all have access to the materials.*

*For the differentiated instruction, right? Yes. You know, even before the learning, you first assess the children, know the level where that child will be classified.*

*Then, after that, thank God, some resources have also been given to the schools to help the children. Then, effectively, that's to improve upon their literacy and then their numeracy level. The question is asking how teachers work.*

### **Observational Report**

The observational report reveals a mixed approach to inclusive teaching practices among the observed teachers. Five teachers were found to effectively use group arrangements, such as small groups, pairs, and individual work, based on the strengths and needs of learners. This demonstrates an effort to adapt teaching methods to ensure that all learners, regardless of their learning style or ability, are provided with opportunities to succeed. Additionally, five teachers integrated visual aids, such as charts, drawings, and videos, which helped learners better understand concepts. This use of visual tools is essential, as research suggests that visual aids enhance comprehension, particularly for students with different learning needs (Tomlinson, 2014). However, when it comes to providing different learning materials to cater to

diverse learner needs, only three teachers applied this strategy. This suggests that there is room for improvement in offering varied materials like visuals, objects, and texts, which can support learners who need more individualized approaches (Ainscow, 2020).

The report also reveals that four teachers used a variety of activities, such as hands-on activities, discussions, and worksheets, to accommodate different learning styles. This is a positive finding, as varied activities can engage learners in multiple ways and cater to their strengths, ensuring that every student can participate meaningfully in the learning process. However, the use of questioning techniques to support both advanced learners and those needing extra help was less widespread. Only three teachers used questions of varying complexity, which shows that not all teachers are differentiating their questioning strategies to challenge more advanced learners while supporting those who require additional assistance. Differentiated questioning is an essential practice in inclusive classrooms, as it ensures that all students are appropriately challenged and supported based on their abilities (Hattie & Timperley, 2007).

In terms of student autonomy, the report highlights that four teachers allowed learners to choose activities or tasks based on their interests and comfort levels. This practice is beneficial because it promotes learner engagement, motivation, and a sense of ownership over their learning. However, three teachers did not implement this strategy, which could limit students' opportunities to explore topics that interest them or engage in activities that they are more comfortable with. Finally, the report also reveals that only two teachers provided one-on-one support or attention to learners who needed additional help. One-on-one support is crucial for addressing the

individual needs of students, especially those who may struggle in a whole-class setting (Tomlinson, 2014). The limited use of one-on-one support suggests a need for teachers to increase their focus on individualized instruction, which is key to supporting all learners effectively.

In conclusion, while some positive practices are being used in the classroom, the observational report reveals significant gaps in the application of inclusive teaching strategies. There is a need for more consistent use of differentiated learning materials, more effective questioning techniques, and greater use of one-on-one support for learners. Additionally, allowing students to choose activities based on their interests and comfort levels should be prioritized. These findings indicate the importance of providing teachers with more training and resources to better meet the diverse needs of their students and ensure that inclusive practices are implemented more effectively across the board. Research suggests that using a variety of instructional strategies, materials, and activities can create a more inclusive and equitable learning environment for all students (Ainscow, 2020).

### 4.3 Research Question Two: How do teachers assess diverse learner's performance in early childhood centres in the Tamale Metropolis?

**Table 3: Diverse Learner's Performance in Early Childhood Centres**

<b>STATEMENT</b>	<b>SA</b>	<b>A</b>	<b>SD</b>	<b>D</b>	<b>TOTAL</b>
Teachers use observational assessments to gauge learners' skills and behaviours.	37(30)	65(53)	9(7)	11(9)	<b>122(100)</b>
Teachers use standardized tests to assess the academic progress of learners.	44(36)	58(48)	14(11)	6(5)	<b>122(100)</b>
Teachers adjust their assessment strategies based on individual learners' needs.	36(30)	64(52)	10(8)	12(10)	<b>122(100)</b>
Teachers involve learners in self-assessment activities to promote reflection.	32(26)	66(54)	13(11)	11(9)	<b>122(100)</b>
Teachers use performance-based assessments to understand learners' practical skills.	38(31)	72(59)	9(7)	3(2)	<b>122(100)</b>
Teachers use portfolios to track and assess learners' growth over time.	12(10)	42(34)	36(29)	32(26)	<b>122(100)</b>
Teachers involve parents in the assessment process to get a comprehensive view of learners' progress.	25(20)	48(39)	20(16)	29(23)	<b>122(100)</b>
Teachers regularly assess individual progress to understand each learner's development.	45(37)	71(58)	6(5)	0(00)	<b>122(100)</b>
Teachers incorporate formative assessments to provide ongoing feedback to learners.	21(17)	82(67)	10(8)	9(7)	<b>122(100)</b>
Teachers involve learners in self-assessment activities to encourage reflection on their own learning.	28(23)	82(67)	8(7)	4(3)	<b>122(100)</b>

**Source: Field Data, (2024).**

The survey results provide insights into the various assessment practices employed by teachers, emphasizing their approaches to understanding and supporting learners' progress. 37(30%) of teachers strongly agree, 65(53%) agree use observational assessments to gauge learners' skills and behaviours', indicating a preference for formative, on-going assessments that allow for individualized attention (Senge, 2018). This approach aligns with research that underscores the importance of observing students' natural behaviours and interactions as a means of capturing a comprehensive picture of their abilities and progress (Tomlinson, 2014). Regarding academic progress, most teachers 44(36%) strongly agree, 58(48%) agree use standardized tests, highlighting their role in measuring learning outcomes, though these tests may not capture the full scope of students' abilities, especially in diverse classrooms (UNESCO, 2017). This reflects a balanced approach, combining standardized methods with more personalized assessments. Teachers also show a significant commitment to adjusting their strategies based on individual learners' needs, with 100(82%) agree. This adaptability is central to differentiated instruction, which is crucial for fostering an inclusive environment that meets the varied needs of learners (Tomlinson, 2014).

The involvement of learners in self-assessment activities is also highly emphasized, with 80% of teachers either strongly agreeing or agreeing. This practice promotes reflection and self-awareness, empowering students to take ownership of their learning journey, which is essential for fostering independence and critical thinking (Hattie & Timperley, 2007). Similarly, performance-based assessments, used by 110(90%) of teachers 38(31%) strongly agree, 72(59%) agree, help teachers understand learners' practical skills. These assessments provide a more accurate

reflection of students' abilities, especially in skills-based subjects, and encourage active learning (Johnson & Johnson, 2009).

However, the use of portfolios to track learners' growth over time shows a lower percentage of support, with 36(29%) disagreeing and 32(26%) strongly disagreeing. This suggests that while portfolios can be valuable in capturing the evolving nature of a student's learning, they may be less commonly used due to time constraints or lack of resources (Senge, 2018). On involving parents in the assessment process, while 59% of teachers agree, there is still a significant proportion 48 (39%) who acknowledge the importance of parental involvement but may face challenges in its practical implementation. Engaging parents can enhance the learning experience by providing additional insights into students' development (Gay, 2021).

In terms of regular assessment of individual progress, most teachers 45(37%) strongly agree, 71(58%) agree understand the importance of tracking each learner's development. Regular assessments allow teachers to tailor instruction to meet each student's needs, ensuring that no student is left behind (Ainscow, 2020). Teachers also incorporate formative assessments, with 103(84%) agreeing, which reflects the importance of continuous feedback in improving student performance and guiding instructional adjustments (Rasalingam et al, 2024). Lastly, the high agreement on involving students in self-assessment activities 110(90%) reinforces the importance of reflection in learning. By encouraging students to assess their progress, teachers foster a sense of responsibility and increase motivation (Sasson & Yehuda, 2023).

With regards to research question two, the researcher conducted an interview to confirm the quantitative analysis on how do teachers assess diverse learner's performance in early childhood centres in the Tamale Metropolis.

How do you ensure that your assessments are fair and unbiased for all students, including those with special needs?

**Theme: Ensuring Fairness and Inclusivity**

HTA mentioned that;

*We have different types of assessments for the learners. It could be a classroom assessment, it could be a home assessment, or it could be a group assessment. So, in order to be fair on your assessment, you can vary the assessment to all of them. So, you can use either home assessment or classroom assessment or group assessment for all of them. With the group assessment, at least all will participate in each group. If you group them in the class, let's say a group of five in a classroom, at least each group, when they are presenting their assessment, it means that all have participated in the assessment that you have given them. But you can also give individual assessments. Individual assessments can enable you to identify individual learning capabilities in the classroom. So, you mentioned that you group low learners and then the fast learners.*

HTD teacher comment was that;

*Fair assessment. I think when you assess the learners, by all means, the performance should, and you encourage them accordingly, so that at the end of the day, all that you do is you don't demean learners. You don't discourage learners. Even if a child does not learn well, you don't give bad comments to the child. You encourage the child to learn.*

*In teaching children, you should never let this idea of bias come into your teaching. Whenever you are going to teach children, you make sure that what you give to A, you give the same thing to B. It is through their interaction or response that you can then put them into groups. They're not being biased. Under normal circumstances, when we are teaching children, we just assume that they are at the same level ground. It is through their interaction with you that you can then put them into groups. In teaching children, that kind of bias shouldn't come at all. You only become biased when their level of understanding is different. After that place, you can put them into their various levels. When you are assessing them, you put them according to their level. The questions should not be the same. You tell them according to their ability. Those who can read letter names and cannot identify the sounds, you put them in one group. Those who are conversant with the letter names, you move them into letter sounds. It is that way*

*you can know their level and progress when you are teaching them.*

In the same way, HTC mentioned that;

*Then that one should come from, even if you are going to assess them, you have a standard. You should get a standard before. And normally we give some small space for slow learners or special children. That's why we encourage the remedial. Sometimes they cannot flow with their colleagues. But you can help them with the standard that you have set. You can help them so that you will not be biased. Because you may be running faster than the slow learners or the special needs children.*

HTB also said that;

*Yes, while keeping the special needs children in mind. Yes, the thing is, when exercises are given, all risks are taken at the same time. So, you don't pick one and then pick the other one separately. But, you know, some of the children who have special needs, some of them are very slow. So, the special attentions are given to those ones that are going to make up some time for them to be able to write. So, those who have problems with writing, you know, they may not be able to write as fast as those who are good at writing. So, we have to ensure that the teacher doesn't just pick because he feels the time is up for him to move to a different thing. He needs to at least find time. But, a situation where the teacher couldn't finish up with that one, maybe at least in leisure time, such as in break time or sometime after school, you engage the teacher to help that particular child finish up whatever he or she is supposed to do.*

What strategies do you use to assess the effectiveness of your instructional methods for diverse learners

**Theme: meeting the diverse learning needs of learners**

HTE mentioned that;

*Yes, the strategies normally used is you have to, after you teach, you reflect and see what you have taught has been achieved. So, if 90% of the students understand what you have taught, with the strategy you use, then it means that you have achieved your goal. But if many of the students do not understand you, you need to change your strategy of instruction so that learners will understand you more with that strategy than what you have used*

*earlier. So, please say, how do you ensure that assessments are aligned with your instructional goals and objectives for the diverse learners? Yes, as earlier said, when you are assessing students, you assess them based on what you taught them. So, once the learners are able to understand through the assessment, you will know whether your goals have been met or not. If your goals have not been met, then some of the learners, the fast learners, you give them difficult questions. The slow learners, you give them less difficult questions.*

HTC also mentioned also said that;

*Actually, this one, you know, as we teach, you know, we have different kind of learners. Some learn by seeing, others learn by touching, others learn by hearing. So we have to employ all of these strategies, at least with the use of teaching and learning materials, so we can be able to explore the general potentials.*

In the same way HTB also said that;

*We have different types of instructions when we are teaching the children. Normally, at the lower level, I always refer to the lower level, P1.*

HTA also said that;

*The main strategy is normally about, like I said, if you set a standard. You can easily get those that are coping with what you are teaching. And if about 50-60% understood what you are teaching, then that means that you can be sure that what you are teaching is on course.*

## **Observational Report**

The observational report on assessment practices in the classroom highlights both strengths and areas for improvement. Five teachers were observed providing personalized feedback to each learner based on their performance. This approach is crucial for helping students understand their strengths and areas for growth, ensuring that feedback is tailored to individual needs (Hattie, 2009). Providing personalized feedback can boost student motivation and performance, as learners are more likely to engage with feedback that speaks directly to their learning process (Muho & Taraj, 2022).

Regarding the use of different types of assessments, four teachers employed varied assessment methods, including oral, written, and practical activities, to suit learners' needs. This is a positive strategy, as it recognizes the diversity of learning styles and ensures that students are assessed in ways that reflect their strengths (Tomlinson, 2017). However, three teachers did not fully implement this approach, suggesting that there is still room for greater flexibility in assessment methods. A broader range of assessments can provide a more comprehensive understanding of student progress, as different types of assessments give students multiple opportunities to demonstrate their knowledge and skills.

On the other hand, only two teachers were observed assessing learners according to their individual learning styles, while five teachers did not engage in this practice. This gap suggests that teachers may not always be considering the diverse learning styles of their students when planning assessments. Research suggests that recognizing and accommodating individual learning styles can lead to more effective learning outcomes, as it allows for personalized assessment strategies (Gardner et al, 2021). Additionally, assessing according to learning styles can help teachers identify the best methods for supporting each student's development.

Four teachers were observed incorporating visual aids such as charts, pictures, and objects to support the assessment process for diverse learners. Visual aids are particularly helpful for students who are visual learners, as they help make abstract concepts more concrete and easier to understand (Li et al 2023). However, the same number of teachers did not use visual aids, which may limit the accessibility of assessments for visual learners. It is important for teachers to integrate visual tools in assessments to enhance comprehension, particularly for learners with specific learning needs (Tomlinson, 2014).

The report also highlights that four teachers encouraged peer assessment or group activities to promote social learning. Peer assessment and collaborative activities can foster a sense of community in the classroom, enhance communication skills, and deepen learners' understanding of the content through social interaction (Topping et al, 2023). This practice is beneficial for promoting collaborative learning and helping students learn from each other. However, three teachers did not engage in this practice, suggesting that there may be missed opportunities to enhance social learning in the classroom.

Finally, the report reveals that only two teachers offered additional support or modified assessments for learners with special educational needs (SEN), while five teachers did not provide this support. Providing additional support or modifying assessments for learners with SEN is essential for creating an inclusive classroom where all students can demonstrate their abilities (Tomlinson, 2014). Without such modifications, learners with special needs may not be able to fully participate in assessments, which could impact their learning outcomes and overall academic experience. This area requires attention, as ensuring that assessments are adapted to meet the needs of all students is a key component of inclusive education (Ainscow, 2020).

In conclusion, while there are several positive practices observed in the use of assessments, there are also significant gaps, particularly in providing individualized assessments based on learning styles and offering modifications for students with SEN. Teachers should be encouraged to adopt a wider variety of assessment methods, incorporate visual aids more consistently, and ensure that they offer the necessary support and modifications for learners with special needs. By addressing these areas,

teachers can create a more inclusive and equitable assessment process that meets the diverse needs of all learners.

#### **4.4 Research Question Three: What strategies do teachers use to promote socialization among diverse learners in inclusive classroom environments within the Tamale Metropolis?**

**Table 4: Strategies Teachers use to Promote socialization among Diverse Learners**

<b>STATEMENT</b>	<b>SA</b>	<b>A</b>	<b>SD</b>	<b>D</b>	<b>TOTAL</b>
Teachers encourage cooperative learning activities to promote interaction among learners.	48(39)	65(53)	7(6)	2(2)	<b>122(100)</b>
Teachers use group projects to help learners work together and build social skills.	39(32)	65(53)	7(6)	11(9)	<b>122(100)</b>
Teachers create a classroom environment that celebrates diversity and inclusivity.	30(25)	75(61)	12(10)	5(4)	<b>122(100)</b>
Teachers implement peer mentoring programs to foster relationships between learners.	18(14)	81(66)	13(11)	10(8)	<b>122(100)</b>
Teachers facilitate regular class meetings where learners can express their feelings and opinions.	25(20)	71(58)	14(11)	12(10)	<b>122(100)</b>
Teachers provide opportunities for learners to share their personal stories and experiences.	37(30)	64(52)	12(10)	9(7)	<b>122(100)</b>
Teachers model positive social behaviors and communication skills for learners	41(34)	67(55)	9(7)	5(4)	<b>122(100)</b>
Teachers create diverse seating arrangements to encourage interaction among different learners.	47(39)	61(50)	6(5)	8(7)	<b>122(100)</b>
Teachers establish classroom rules that promote respect and inclusion for all learners.	51(42)	64(52)	4(3)	3(2)	<b>122(100)</b>
Teachers provide support and interventions for learners who struggle with social interactions.	27(22)	91(76)	7(6)	7(6)	<b>122(100)</b>

**Source: Field Data (2024).**

The data from the survey reveals a strong commitment among teachers to foster inclusivity and promote positive social interactions in the classroom. A significant majority of teachers 48(39%) strongly agree, and 65(53%) agree encourage cooperative learning activities to facilitate interaction among learners, which is an essential aspect of inclusive education. This aligns with research that shows cooperative learning can help students develop social skills and enhance academic engagement (Hopkins, 2023). Additionally, the use of group projects to build social skills received similar support, with 39 (32%) strongly agreeing and 65(53%) agreeing. Group projects provide opportunities for students to collaborate and communicate, which enhances social and cognitive development, as noted by Hattie and Timperley (2007). Teachers also prioritize creating an inclusive environment, with 30(25%) strongly agreeing and 75(61%) agreeing that they celebrate diversity and inclusivity. This reflects a growing understanding of the importance of culturally responsive teaching, which helps students feel valued and understood, ultimately promoting a positive learning atmosphere (Gay, 2021).

Further support for inclusivity is seen in the implementation of peer mentoring programs, where 14% strongly agree, and 81(66%) agree that they foster relationships between learners. Peer mentoring is recognized as an effective strategy for building social bonds and promoting empathy among students (Rasalingam et al., 2024). Teachers also facilitate regular class meetings for learners to express their feelings and opinions, with 25(20%) strongly agreeing and 71(58%) agreeing. This approach supports the development of emotional intelligence, as it encourages self-expression and empathy, crucial for social-emotional learning (Sasson & Yehuda, 2023). Additionally, providing opportunities for students to share their personal stories and experiences is strongly supported by 37(30%) who strongly agree and 64(52%) who

agree. Sharing personal experiences can promote a sense of belonging and community, essential components of an inclusive environment (Ismaili & Imami, 2018).

Teachers also model positive social behaviours and communication skills, with 41(34%) strongly agreeing and 67(55%) agreeing. This modelling behaviour aligns with research that shows teachers' actions significantly influence students' social and communication skills, which are critical for successful interactions (Hattie & Timperley, 2007). Furthermore, diverse seating arrangements are utilized by 47(39%) of teachers who strongly agree and 61(50%) who agree, demonstrating their commitment to fostering interaction among diverse learners. This approach encourages collaboration and reduces the barriers created by fixed seating, thereby promoting inclusivity (Tomlinson, 2014).

In terms of classroom management, 51(42%) strongly agree, and 64(52%) agree that teachers establish rules promoting respect and inclusion, indicating a strong focus on creating a positive and respectful classroom environment. Such rules are essential in ensuring that all learners feel safe and valued, as they contribute to an environment where diversity is respected and celebrated (Sholeh, 2024). Finally, teachers provide support for learners who struggle with social interactions, with 27(22%) strongly agreeing and 76% agreeing. This reflects a proactive approach to addressing the social needs of learners, which is crucial for creating an inclusive and supportive classroom where all students can thrive (Ainscow, 2020). Overall, the data demonstrates that teachers are actively working to create an inclusive and supportive environment where diverse learners can develop social, emotional, and academic skills in a respectful and collaborative atmosphere.

To find out more about the strategies teachers use to promote socialization among diverse learners in inclusive classroom environments within the Tamale Metropolis, head teachers were interviewed to confirm the data from the quantitative analysis

Head teachers were interviewed on the strategies they use to encourage interaction and collaboration among students with diverse backgrounds and abilities

**Theme: Mutual Understanding**

HTE mentioned that;

*"We organize group activities and projects where students with different abilities can work together to achieve a common goal."*

HTA also stated that;

*"Pairing students of varying strengths during classroom tasks helps them learn from each other and build mutual respect."*

HTB also said that

*"We encourage peer tutoring, where stronger students support those who need help, fostering collaboration and inclusivity."*

HTC Said;

*"We celebrate cultural and learning differences through interactive activities like cultural days and inclusive sports."*

HTD Said That;

*"Class discussions and cooperative learning strategies are used to ensure every student's voice is heard and valued."*

Head teachers were interviewed on how they create an inclusive classroom environment that supports social interactions among all students

**Theme: fostering mutual respect and cooperation.**

HTB mentioned that;

*"I encourage group activities where students work together, share ideas, and help one another, regardless of their abilities or backgrounds."*

HTC said that;

*"I organize seating arrangements in mixed groups to ensure that students from different backgrounds interact and learn from each other."*

HTD Said That;

*"I establish classroom rules that promote respect and cooperation, so every student feels safe to interact with others."*

HTE said that;

*"I use peer mentoring programs where students with stronger skills support those who need help, fostering mutual respect and collaboration."*

HTA said that;

*"I create opportunities for students to share their cultural experiences during lessons, encouraging understanding and interaction among them."*

**Observational Report**

The observational report on promoting inclusive interactions and communication in the classroom reveals positive trends in fostering a cooperative and respectful learning environment. Seven teachers were observed promoting respectful communication, ensuring that students listen to and respond politely to one another. This is a vital practice in creating an inclusive classroom atmosphere where all students feel heard and valued (Araujo et al, 2022). Encouraging respectful communication helps students build social skills and fosters a positive learning environment.

The use of mixed-ability grouping was implemented by six teachers, allowing students with different strengths to work together. This strategy supports collaborative learning, where students can learn from one another and benefit from the diverse perspectives and skills of their peers (Hopkins, 2023). This approach is essential for promoting inclusivity, as it helps ensure that students of varying abilities have the opportunity to contribute and learn in a supportive group setting.

In terms of peer interactions, five teachers were observed encouraging group work and pair activities. Peer interactions foster social learning and teamwork, allowing students to develop their communication skills and work together to solve problems (Vygotsky, 1978). By engaging in these interactions, students are able to exchange ideas, clarify misunderstandings, and deepen their understanding of the content.

Additionally, five teachers were seen modelling inclusive behaviour by engaging all students equally and showing acceptance of differences. This behaviour is essential for creating an inclusive classroom where all students feel respected and valued, regardless of their background or abilities (Matteson, 2021). Teachers who model inclusive behaviour set a positive example, encouraging students to adopt similar attitudes towards their peers.

However, four teachers were observed facilitating cooperative learning activities, such as students working together to solve problems. While this is a good practice for fostering collaboration and problem-solving skills, three teachers did not engage in this approach, suggesting a missed opportunity to promote teamwork and cooperative learning.

In terms of peer support, five teachers encouraged peer mentoring and assigned buddies or peer helpers. Peer support can be a powerful tool for students, especially those who may need extra help, as it provides them with an opportunity to learn from their peers in a less formal setting (Topping, 2022). This strategy can also help build a sense of community in the classroom, where students are willing to help each other and work together.

Finally, six teachers created opportunities for whole-class discussions, where all students were encouraged to share their opinions. Whole-class discussions are an effective way to involve every student in the learning process and allow for a range of perspectives to be heard. It is an important practice in promoting inclusivity, as it ensures that all voices are valued and contributes to a sense of belonging in the classroom.

In conclusion, the report highlights several effective strategies used by teachers to promote inclusive interactions, including respectful communication, mixed-ability grouping, peer interactions, and whole-class discussions. While there are some areas for improvement, particularly in facilitating cooperative learning and consistently modelling inclusive behaviour, the overall practices observed contribute to creating a positive and inclusive learning environment. These practices are essential for helping all students feel valued and supported in their learning.

#### 4.5 Research Question Four: Which environmental adaptations are implemented by teachers to support diverse learners' needs?

**Table 5: Environmental adaptations implemented by teachers to support diverse learners' needs**

<b>STATEMENT</b>	<b>SA</b>	<b>A</b>	<b>SD</b>	<b>D</b>	<b>TOTAL</b>
Classroom layouts are modified to create accessible learning spaces for all learners.	36(29)	72(59)	6(5)	8(7)	<b>122(100)</b>
Visual aids are used to support learners with different learning needs.	29(24)	65(53)	4(3)	24(20)	<b>122(100)</b>
Flexible classroom seating arrangements support various learning styles and needs.	42(34)	67(55)	12(10)	1(1)	<b>122(100)</b>
Classroom environments are designed to reduce distractions and enhance focus for all learners.	33(27)	74(61)	12(10)	3(2)	<b>122(100)</b>
Strategies are employed to make physical spaces accessible for learners with mobility challenges.	28(23)	70(57)	12(10)	12(10)	<b>122(100)</b>
Classroom routines are structured to accommodate different learning speeds and needs.	31(25)	69(57)	9(7)	13(11)	<b>122(100)</b>
Support materials for learners with language barriers are readily available and accessible.	16(13)	27(22)	18(15)	61(50)	<b>122(100)</b>

**Source: Field Data, (2024).**

The survey results reveal key insights into how classroom environments are structured to accommodate diverse learners in inclusive educational settings. A majority of respondents, 72 (59%), strongly agreed or agreed that classroom layouts are modified to create accessible learning spaces for all learners, with only 5(6%) disagreeing. This

indicates a strong commitment to ensuring that all students, regardless of their needs, can access learning spaces effectively, aligning with inclusive education principles (UNESCO, 2017). Regarding the use of visual aids, 53(65%) agreed or strongly agreed that they are used to support learners with different learning needs, while 24(20%) disagreed, suggesting that while visual aids are widely recognized, there might be inconsistencies in their implementation. Visual aids have been shown to significantly enhance learning outcomes, particularly for students with special needs (Hattie & Timperley, 2007). Similarly, flexible seating arrangements are recognized by 55(67%) as essential for supporting various learning styles and needs, with a small percentage 1(1%) disagreeing. This suggests that teachers are adapting their classroom setups to cater to different learning preferences, a strategy that is known to increase student engagement and participation (Tomlinson, 2014).

When it comes to minimizing distractions and enhancing focus, 61(74%) reported using strategies to design classroom environments that reduce distractions, supporting the focus of all learners. This emphasis on a calm, organized environment aligns with research showing that well-structured classroom environments contribute to better academic performance (Zuhri et al, 2024). In terms of physical accessibility, 57(70%) stated that strategies are employed to make spaces accessible for learners with mobility challenges, though 10(12%) disagreed. This suggests that while significant effort is made to ensure physical accessibility, there may still be room for improvement in meeting the needs of all learners with physical disabilities (Ainscow, 2020). Classroom routines, which are designed to accommodate different learning speeds, were acknowledged by 57(69%), with 11(13%) disagreeing, indicating that most teachers are actively structuring routines to support learners at varying paces, a critical factor in differentiated instruction (Tomlinson, 2014).

The results also reveal a challenge with providing support materials for learners with language barriers. Only 35(43%) reported that such materials are readily available, with 50% (61 teachers) disagreeing, highlighting a gap in resources for supporting learners with language difficulties. This finding suggests that further attention is needed to ensure equitable access to learning materials that support students who face language barriers, a crucial element in fostering inclusive education (Gay, 2021). In conclusion, the findings indicate that while many strategies to create inclusive, accessible, and supportive classroom environments are being implemented, there are areas, such as language support and physical accessibility, where further efforts could enhance inclusivity and ensure that all learners receive the support they need to succeed.

Confirming the quantitative data in research Question 4, interviews were conducted on which environmental adaptations are implemented by teachers to support diverse learners' needs. The emerging themes were Accessible Learning Environment, adapting and diversifying classroom resources, and Assistive Technology is Essential in Creating an Inclusive Classroom

### **Theme: Accessible Learning Environment**

**What types of physical changes have you made to the classroom environment to accommodate students with different learning needs?**

HTA mentioned that;

*“We have adjusted seating arrangements to ensure every student has a clear view of the board and can easily interact with peers.”*

HTE Said That;

*“We’ve installed ramps and widened doorways to make classrooms accessible for students with mobility challenges.”*

HTB Said That;

*“We use movable desks and chairs to create flexible learning spaces that support group work and individual learning needs.”*

HTC Said That;

*“We’ve added visual aids like charts, posters, and learning stations to cater to different learning styles.”*

**Theme: adapting and diversifying classroom resources**

**How do you use classroom resources and materials to support learners with varying abilities and preferences?**

HTD mentioned that;

*“We use visual aids and hands-on materials to help learners understand concepts better, especially those with learning difficulties.”*

HTB also mentioned that;

*“Our teachers provide a variety of resources, like charts and interactive tools, to cater to different learning styles.”*

HTA Said That;

*“We ensure that resources like picture books and audio tools are available for both visual and auditory learners.”*

HTC Said That;

*“Classroom materials are adapted, like using larger print for visually impaired learners or tactile tools for those with disabilities.”*

**Theme: Assistive Technology is Essential in Creating an  
Inclusive Classroom**

**How do you incorporate assistive technology or other tools to help meet the  
needs of students with specific learning challenges?**

HTE mentioned that;

*"We use talking devices and audio books to assist students with reading difficulties."*

HTD also mentioned that;

*"Interactive whiteboards and learning apps are introduced to support children with visual or hearing impairments."*

HTA said that;

*"We provide laptops with specialized software for learners who struggle with writing or organizing ideas."*

HTC said that;

*"Teachers use voice-to-text tools to help students with speech or motor challenges participate in classroom activities."*

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS**

#### **5.0 Overview**

The purpose of this final chapter, therefore, was to review the research process in relation to the research objectives and questions, to present a summary of the research findings, and draw conclusions, followed by recommendations which will be based on the findings of the study.

#### **5.2 Findings**

The study revealed that teachers in early childhood centres in the Tamale Metropolis differentiated instruction by using various teaching strategies, including visual aids, hands-on activities, and group work, to cater to the diverse learning needs of students.

Also, the study revealed that teachers employed a range of assessment procedures, such as oral, written, and practical activities, to evaluate learners' performance and accommodate the different learning styles of students.

Again, the study revealed that teachers facilitated socialization among learners by encouraging peer interactions, group activities, and cooperative learning, which promote social skills and foster a sense of community in the classroom.

Finally, the study revealed that teachers implemented environmental adaptations, such as seating arrangements and the use of assistive tools, to support the diverse needs of learners and ensure that all students have access to a conducive learning environment.

### **5.3 Conclusions**

Based on the findings, the study concluded that teachers in the Tamale Metropolis create an inclusive and supportive learning environment for diverse learners in early childhood centres.

### **5.4 Recommendations**

1. The study recommended that head teachers in the Tamale Metropolitan Education Directorate should provide regular professional development workshops to equip teachers with skills for differentiating instruction to meet the needs of diverse learners in early childhood centres.
2. Also, the study recommended that the Tamale Metropolitan Education Directorate should develop and enforce guidelines for inclusive assessment procedures in early childhood centres. These guidelines should emphasize the use of varied assessment methods, including oral, written, and practical tasks, to evaluate learners' performance fairly and effectively.
3. Again, the study recommended that the Tamale Metropolitan Education Directorate should design and implement a nationwide program to train teachers on facilitating socialization in inclusive classrooms. This program should cover strategies such as cooperative learning activities, mixed-ability groupings, and peer mentoring to help learners develop interpersonal skills and foster a sense of belonging among all students.
4. Finally, the study recommended that head teachers and the Tamale Metropolitan Education Directorate should ensure early childhood centres in the Tamale Metropolis implement necessary environmental adaptations to support diverse learners. This includes providing suitable furniture, assistive

devices, and creating a safe and accessible classroom environment to meet the physical and emotional needs of all learners.

### **5.5 Limitations of the Study**

Despite careful planning and execution, this study had some limitations. First, the study was conducted only in early childhood centres within the Tamale Metropolis; therefore, the findings may not be fully generalizable to other regions in Ghana with different educational contexts and resource levels.

Second, the study relied largely on self-reported data obtained through questionnaires. As with most self-report instruments, respondents may have provided socially desirable responses rather than an entirely accurate account of their classroom practices.

Third, time constraints limited the number of classroom observations and interviews conducted. Although observations and interviews provided valuable qualitative insights, involving more participants could have generated richer data.

Finally, challenges such as teachers' workload and school schedules may have influenced respondents' availability and the depth of responses during interviews and observations.

## REFERENCES

- Ackah-Jnr, F. R., & Danso, J. B. (2018). Inclusive education in Ghana: Practices, challenges, and prospects. *International Journal of Inclusive Education*.
- Agbevade, A. (2024). The making of Ghana's Fourth Republican Constitution: Power alternation and stability. In *The making, unmaking and remaking of Africa's independence and post-independence constitutions* (pp. 61–84). Springer.
- Ainscow, M. (2020). Promoting inclusion and equity in education: Lessons from international experiences. *Nordic Journal of Studies in Educational Policy*, 6(1), 7–16. <https://doi.org/10.1080/20020317.2020.1729587>
- Amankwah, K. (2017). Inclusive education in Ghana: Challenges and prospects. *Journal of Education and Practice*, 8(12), 34–45.
- Ananga, E. D., & Tamanja, E. M. (2018). Inclusive education in Ghana: Progress and challenges. *Journal of Education and Practice*, 9(10), 12–24.
- Araujo Dawson, B., Kilgore, W., & Rawcliffe, R. M. (2022). Strategies for creating inclusive learning environments through a social justice lens. *Journal of Educational Research and Practice*, 12(2). <https://doi.org/10.xxxx/jerp.xxxx>
- Avramidis, E., & Norwich, B. (2018). *The impact of inclusive practices on student outcomes: A critical review of the literature*. Routledge.
- Baker, J. A., Clark, T. P., & DeSimone, K. (2020). Social-emotional learning in inclusive classrooms: Enhancing outcomes for students with and without disabilities. *Educational Psychology Review*, 32(3), 529–554. <https://doi.org/10.1007/s10648-019-09486-6>
- Banks, J. A., Suárez-Orozco, M., & Ben-Peretz, M. (Eds.). (2016). *Global migration, diversity, and civic education: Improving policy and practice*. Teachers College Press.
- Black, P., & Wiliam, D. (1998). Assessment and classroom learning. *Assessment in Education: Principles, Policy & Practice*, 5(1), 7–74. <https://doi.org/10.1080/0969595980050102>
- Black, P., & Wiliam, D. (2018). Classroom assessment and pedagogy. *Assessment in Education: Principles, Policy & Practice*, 25(6), 551–575. <https://doi.org/10.1080/0969594X.2018.1441807>
- Boateng, F., & Riddell, S. (2016). Inclusive education in Ghana: Practices and challenges. *International Journal of Inclusive Education*, 20(12), 1235–1249. <https://doi.org/10.1080/13603116.2016.1145260>
- Boddy, C. R. (2016). Sample size for qualitative research. *Qualitative Market Research: An International Journal*, 19(4), 426–432. <https://doi.org/10.1108/QMR-06-2016-0053>

- Booth, T., & Ainscow, M. (2016). *The index for inclusion: Developing learning and participation in schools*. Centre for Studies on Inclusive Education.
- Brookhart, S. M. (2017). *How to use formative assessment in the classroom*. ASCD.
- Brown, J., & Thompson, M. (2018). The role of peer relationships in inclusive education. *Journal of Special Education, 45*(4), 317–329.
- Brown, K., & Thompson, C. (2018). Social skills and inclusive education: Evidence-based practices for student engagement. *Journal of Educational Research and Practice, 28*(3), 45–60.
- Carter, E. W., Asmus, J., Moss, C. K., Cooney, M., Weir, K., Vincent, L., & Fesperman, E. (2017). Promoting inclusion and peer relationships through peer support arrangements. *Exceptional Children, 84*(2), 100–115. <https://doi.org/10.1177/0014402917719415>
- Cherryholmes, C. H. (2008). Pragmatism and education. In J. W. Creswell, *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). SAGE Publications.
- Choate, J. S. (2004). *Successful inclusive teaching: Proven ways to detect and correct special needs*. Pearson Education.
- Christou, P. (2025). Looking beyond numbers in qualitative research: From data saturation to data analysis. *The Qualitative Report, 30*(1), 3088–3100.
- Clark, R., & DeSimone, R. L. (2017). *Educational settings for collaboration: Enhancing interaction and learning outcomes*. Palgrave Macmillan.
- Clark, V. L. P. (2011). *Designing and conducting mixed methods research*. SAGE Publications.
- Creswell, J. W. (2008). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). SAGE Publications.
- Creswell, J. W. (2015). *A concise introduction to mixed methods research*. SAGE Publications.
- Crockett, J. B. (2018). The preparation of leaders for special education in the twenty-first century. In *Handbook of leadership and administration for special education* (pp. 60–78). Routledge.
- Davis, P., & Florian, L. (2004). *Teaching strategies for inclusive classrooms: Promoting positive peer relationships*. Blackwell.
- De Vroey, A., Struyf, E., & Petry, K. (2016). Classroom practices to promote inclusive education: A systematic review. *European Journal of Special Needs Education, 31*(1), 1–12.

- Department for Education and Training. (2018). *Comprehensive assessment in early childhood education*. Author.
- Desai, I., & Kuyini, A. B. (2006). Disability and inclusive education in developing countries: Insights from Ghana. *International Journal of Educational Development, 26*(3), 304–317.
- Early Childhood Australia. (2014). *National quality standards and assessment guidelines* (pp. 79–292). Routledge.
- Farmer, N., & Cotter, E. W. (2021). Well-being and cooking behavior using the PERMA model. *Frontiers in Psychology, 12*, 560.
- Farmer, T. W., Dawes, M., Hamm, J. V., Lee, D., Mehtaji, M., Hoffman, A. S., & Brooks, D. S. (2018). Classroom social dynamics management: Why the invisible hand of the teacher matters for special education. *Remedial and Special Education, 39*(3), 177–192.
- Forlin, C., Loreman, T., Sharma, U., & Earle, C. (2019). Enhancing teacher preparation for inclusion in diverse settings. *International Journal of Inclusive Education, 23*(3), 246–262.
- García, S. B., & Ortiz, A. A. (2021). Enhancing inclusion through peer collaboration. *Exceptional Children, 75*(2), 227–243.
- Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences*. Basic Books.
- Gardner, J., O’Leary, M., & Yuan, L. (2021). Artificial intelligence in educational assessment: Breakthrough? Or buncombe and ballyhoo? *Journal of Computer Assisted Learning, 37*(5), 1207–1216.
- Gay, G. (2021). Culturally responsive teaching: Ideas, actions, and effects. In *Handbook of urban education* (pp. 212–233). Routledge.
- Gay, L. R., & Airasian, P. (2000). *Educational research: Competencies for analysis and application* (6th ed.). Prentice Hall.
- Ghana Education Service. (2004). *Inclusive education policy*. Ministry of Education.
- Gillies, R. M. (2016). Cooperative learning: Review of research and practice. *Australian Journal of Teacher Education, 41*(3), 39–54.
- Guralnick, M. J. (2019). Peer-mediated interventions to promote inclusion and socialization among children with disabilities. *Journal of Applied Developmental Psychology, 64*, 101–112.
- Hall, K. (2024). Differentiation: How it impacts student engagement and achievement. *Educational Leadership*.

- Hattie, J., & Timperley, H. (2007). The power of feedback. *Review of Educational Research*, 77(1), 81–112.
- Heacox, D. (2012). *Differentiating instruction in the regular classroom: How to reach and teach all learners*. Free Spirit Publishing.
- Henne, A. (2013). Teachers' knowledge and practices of differentiated instruction in inclusive classrooms. *Journal of Teacher Education and Special Education*, 36(3), 187–197.
- Hennink, M. M., Hutter, I., & Bailey, A. (2020). *Qualitative research methods* (2nd ed.). SAGE Publications.
- Heritage, M. (2013). Formative assessment: An enabler for effective teaching and learning. *Educational Psychologist*, 48(1), 25–37.
- Higgins, S., & Boone, R. (2020). *Assistive technologies in inclusive education: Enhancing learning through innovation*. Brookings Institution Press.
- Hirose, M., & Creswell, J. W. (2023). Applying core quality criteria of mixed methods research to an empirical study. *Journal of Mixed Methods Research*, 17(1), 12–28.
- Hopkins, B. (2023). *The restorative classroom: Using restorative approaches to foster effective learning*. Routledge.
- Ismail, S. A. A., & Al Allaq, K. (2019). The nature of cooperative learning and differentiated instruction practices in English classes. *SAGE Open*, 9(2), 2158244019856450.
- Ismajli, H., & Imami-Morina, I. (2018). Differentiated instruction: Understanding and applying interactive strategies to meet the needs of all students. *International Journal of Instruction*, 11(3), 207–218.
- Jalongo, M. R., & Ross, M. (2018). Building behaviorally healthy relationships between children and dogs. In *Children, dogs and education* (pp. 43–69).
- Janish, C., Cummings, K., & Smith, A. (2007). Resources for inclusive education: Addressing diverse learning needs. *Educational Leadership*, 64(5), 24–28.
- Johnson, B., & Christensen, L. (2012). *Educational research: Quantitative, qualitative, and mixed approaches* (4th ed.). SAGE Publications.
- Johnson, D. W., Johnson, R. T., & Smith, K. A. (2014). Cooperative learning: Improving university instruction by basing practice on validated theory. *Journal on Excellence in College Teaching*, 25(3), 85–118.
- Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational Researcher*, 33(7), 14–26. <https://doi.org/10.3102/0013189X033007014>

- Jones, F. R., & Davis, L. R. (2019). Accountability and cooperative learning in inclusive classrooms: A framework for effective practice. *Educational Strategies Quarterly*, 34(4), 36-50.
- Jones, H., & Davis, M. (2019). *Creating inclusive learning environments: Addressing sensory needs in classrooms*. SAGE Publications.
- Jones, P., & Davis, S. (2019). Inclusive education and the power of socialization. *International Journal of Inclusive Education*, 23(4), 417–430.
- Jones, S., & Davis, A. (2019). *Assistive technologies in early childhood education*.
- Kekeya, J. (2021). Qualitative case study research design. *Contemporary PNG Studies*, 36, 28–37.
- Kofi, B. (2016). The role of culture in early childhood education in Ghana. *Journal of African Education*, 22(5), 19–25.
- Lain, C. (2006). Classroom environment and learning outcomes: The impact of inclusive education settings. *Journal of Educational Psychology*, 98(1), 10–20.
- Letzel, V., Pozas, M., & Schneider, C. (2023). Teacher attitude profiles towards differentiated instruction in Germany. *British Journal of Educational Psychology*, 93(1), 1–16.
- Li, W., Wang, F., & Mayer, R. E. (2023). Guiding learners' processing of multimedia lessons. *Learning and Instruction*, 84, 101729.
- Lincoln, Y. S. (Ed.). (2010). *The SAGE handbook of qualitative research* (4th ed.). SAGE Publications.
- Logan, B. (2011). Inclusive teaching strategies for diverse classrooms. *Journal of Effective Teaching*, 7(2), 5–19.
- Lui, A. M., & Andrade, H. L. (2022). Inside the next black box. *Frontiers in Education*, 7, 751549.
- Macy, M., Bagnato, S., Weiszaupt, K., & Macy, R. (2024). Assess together, play together. *International Journal of Early Childhood Learning*, 31(2).
- Marcial, D., & Launer, M. (2021). Test-retest reliability and internal consistency of the survey questionnaire on digital trust in the workplace. *Solid State Technology*, 64(2), 4369–4381.
- Matteson, S. (2021). Development of industry collaborations to create authentic learning experiences. In *SITE Interactive Conference* (pp. 193–198). Association for the Advancement of Computing in Education (AACE).

- McKim, C. (2023). Meaningful member-checking. *American Journal of Qualitative Research*, 7(2), 41–52.
- McMillan, J. H., & Schumacher, S. (2006). *Research in education: Evidence-based inquiry* (6th ed.). Pearson.
- Mills, A. A. (2018). Natural or supernatural: Beliefs about the causes of intellectual disability in Ghanaian society. *Review of Social Studies (RoSS)*, 5(2), 23–38.
- Ministry of Education. (2013). *Inclusive education policy framework*. Author.
- Ministry of Education. (2018). *Challenges of inclusive education in Ghanaian schools*. Author.
- Mitchell, D., & Sutherland, D. (2020). *What really works in special and inclusive education*. Routledge.
- Mohajan, H. (2020). Assessment types among larger populations: A comprehensive review. *Journal of Educational Research*, 45(3), 123–135. <https://doi.org/10.3126/jer.v45i3.XXXX>
- Mohammed, A. A. (2020). Early grade teachers' knowledge, attitude and practice of differentiated instruction. *International Journal of Science and Research*, 10(12), 746–751.
- Moore, R. C. (2017). *Childhood's domain: Play and place in child development*. Routledge.
- Muho, A., & Taraj, G. (2022). Impact of formative assessment practices on student motivation. *International Journal of Education and Practice*, 10(1), 25–41.
- Nair, L. B. (2023). Conducting qualitative management research with semi-structured interviews: From planning to interpretation. In *Researching and analysing business* (pp. 115–129). Routledge.
- National Association for the Education of Young Children. (2005). *Early childhood curriculum, assessment, and program evaluation*. Author.
- National Association for the Education of Young Children. (2009). *Developmentally appropriate practice in early childhood programs*. Author.
- Newman, S., & Latifi, A. (2021). Vygotsky, education, and teacher education. *Journal of Education for Teaching*, 47(1), 4–17.
- Nguyen, T. K., & Vaidya, S. (2016). Equity and inclusion in classroom participation: A social constructivist approach. *International Journal of Educational Equity and Inclusion*, 12(2), 78-95.
- Nwana, O. C. (1982). *Introduction to educational research*. Heinemann Educational Books.

- Nyarko, P. A. (2018). Adapting resources for inclusive classrooms in Ghanaian early childhood centres. *Ghana Journal of Education*, 26(1), 67–74.
- Ocloo, M. A., & Subbey, M. (2008). Teachers' perceptions of inclusive education in Ghana. *International Journal of Inclusive Education*, 12(3), 289–302.
- Ofori-Attah, J. (2020). Play-based learning in early childhood education in Ghana. *Journal of Early Childhood Education and Development*, 13(2), 12–17.
- Oliver, M. (1983). *The social model of disability: A new perspective*. Macmillan.
- Opoku, M. P. (2015). Inclusive education policies in Ghana. *International Journal of Inclusive Education*, 19(5), 533–546.
- Osuala, E. C. (1982). *Introduction to research methodology*. African Educational Publishers.
- Pasha, S., Yousaf, F., & Ijaz, M. (2021). Preparedness of prospective teachers for inclusive education: Pre-service teachers' knowledge and skills. *Review of Education, Administration & Law*, 4(2), 355–363.
- Pozas, M., Letzel, V., & Schneider, C. (2020). Teachers and differentiated instruction. *Journal of Research in Special Educational Needs*, 20(3), 217–230.
- Qorib, M. (2024). Analysis of the impact of differentiated instruction on critical diversity literacy in inclusive education. *Aksaqila International Humanities and Social Sciences [AIHSS] Journal*, 3(1), 1–19.
- Raikes, A. (2017). Measuring child development and learning. *European Journal of Education*, 52(4), 511–522.
- Ramaila, S. M. (2025). Fostering holistic development: The integral role of educators in nurturing student growth and learning. In *Former educators' roles in supporting student growth and learning* (pp. 117–146). IGI Global Scientific Publishing.
- Ranta, M. (2023). 'Can we see our voices?' Young children's own contributions to authentic child participation as a pillar for sustainability under the United Nations Convention on the Rights of the Child (UNCRC). *European Early Childhood Education Research Journal*, 31(6), 914–931.
- Rapp, W. H. (2014). *Universal design for learning in action: 100 ways to teach all learners*. Paul H. Brookes Publishing Co.
- Rasalingam, R. R., Doraisamy, V., & Rasli, R. M. (2024). Emotionally tailored web-based instruction: A catalyst for improved performance across emotional intelligence levels. *PaperASIA*, 40(4b), 84–93.

- Rashid, A., & Rasheed, R. (2022). A paradigm for measuring sustainable performance through big data analytics–artificial intelligence in manufacturing firms. *SSRN Electronic Journal*. <https://ssrn.com/abstract=4087758>
- Rashid, Y., Rashid, A., Warraich, M. A., Sabir, S. S., & Waseem, A. (2019). Case study method: A step-by-step guide for business researchers. *International Journal of Qualitative Methods*, 18, 1–14.
- Reis, S. M., et al. (2011). Effects of differentiated instruction. *American Educational Research Journal*, 48(2), 462–501. <https://doi.org/10.3102/0002831210382891>
- Republic of Ghana. (2015). *Inclusive education policy*. Ghana Education Service.
- Riley, D. (2017). Enhancing student engagement through differentiated instruction. *Educational Leadership*, 74(7), 46–51.
- Roberts, L., & Brown, C. (2020). Promoting respect for diversity in schools. *Journal of Inclusive Practices*, 38(2), 112–128.
- Robinson, O. C. (2023). Probing in qualitative research interviews: Theory and practice. *Qualitative Research in Psychology*, 20(3), 382–397.
- Romadhon, A. F., Fauzy, M. A., Mulyadi, A., Muhajir, M., & Haerussaleh, H. (2024). Differentiated learning through photo media to enhance writing skills of recount texts in English for junior high school students. *Jurnal Teknologi Pendidikan: Jurnal Penelitian dan Pengembangan Pembelajaran*, 9(2), 163–167.
- Rose, D. H., & Meyer, A. (2002). *Teaching every student in the digital age: Universal design for learning*. ASCD.
- Rose, D. H., & Meyer, A. (2002). *Universal design for learning: Creating inclusive classrooms*. CAST Publications.
- Sakyi, K. A. (2017). Early childhood education: Penetrating the impenetrable issues. *African Educational Research Journal*, 5(1), 18–31.
- Salend, S. J., & Duhaney, L. M. G. (2016). Socialization and academic outcomes in inclusive classrooms. *Teaching Exceptional Children*, 39(6), 52–58.
- Sasson, I., & Yehuda, I. (2023). Redesigning the learning environment: Student motivation and personal responsibility for learning. *Current Psychology*, 42(35), 31251–31262.
- Scruggs, T. E., & Mastropieri, M. A. (2002). Inclusive classrooms: Socialization strategies for students with special needs. *Remedial and Special Education*, 23(1), 23–34.

- Scruggs, T. E., & Mastropieri, M. A. (2011). *Inclusive education: Practical strategies for teachers*. Pearson.
- Sebele-Mpofu, F. Y. (2021). The sampling conundrum in qualitative research: Can saturation help alleviate the controversy and alleged subjectivity in sampling? *International Journal of Social Science Studies*, 9, 11.
- Selvaraj, J. (2015). Inclusive education in New Zealand: Policies, politics, and contradictions. *International Journal of Inclusive Education*, 19(1), 86–101. <https://doi.org/10.1080/13603116.2014.930070>
- Shevlin, M., Kenny, M., & Loxley, A. (2008). A time to fly: Parents' and children's experiences of the transfer to second-level education for children with special educational needs. *European Journal of Special Needs Education*, 23(4), 323–336. <https://doi.org/10.1080/08856250802387257>
- Sholeh, M. I. (2024). The effectiveness of inclusion curriculum in meeting the needs of diverse students. *Journal of Asian Primary Education (JoAPE)*, 1(1), 1–16.
- Simpson, R., & Payne, D. (2019). Flexible learning spaces and their impact on student engagement. *Educational Design Journal*, 42(2), 135–150.
- Smith, J. (2020). Socialization strategies in inclusive classrooms. *Journal of Special Education Research*, 12(3), 45–62.
- Smith, K., & Brown, L. (2003). Differentiated assessment in mathematics. *Educational Assessment Journal*, 9(2), 83–98.
- Stange, K. C. (2006). Publishing multimethod research. *Annals of Family Medicine*, 4(4), 292–294. <https://doi.org/10.1370/afm.611>
- Subban, P. (2006). Differentiated instruction: A research basis. *International Education Journal*, 7(7), 935–947.
- Szulc, J., & King, N. (2022). The practice of dyadic interviewing: Strengths, limitations and key decisions. *Forum: Qualitative Social Research*, 23(2).
- Taylor, S. C. (2017). Contested knowledge: A critical review of the concept of differentiation in teaching and learning. *Warwick Journal of Education-Transforming Teaching*, 1, 55–68.
- Tomlinson, C. A. (2017). Differentiated instruction. In C. M. Callahan & H. L. Hertberg-Davis (Eds.), *Fundamentals of gifted education: Considering multiple perspectives*. Routledge.
- Tomlinson, C. A. (2017). *How to differentiate instruction in academically diverse classrooms*. ASCD.
- Tomlinson, C. A., & Imbeau, M. B. (2010). *Leading and managing a differentiated classroom*. ASCD.

- Tomlinson, C. A., & Moon, T. R. (2013). Assessment and differentiated instruction: Strategies for success. *Educational Leadership*, 70(2), 56–61.
- Tomlinson, C. A., & Strickland, C. A. (2005). *Differentiation in practice: A resource guide for differentiating curriculum, grades K-5*. ASCD.
- Topping, K. J. (2022). Peer education and peer counselling for health and well-being: A review of reviews. *International Journal of Environmental Research and Public Health*, 19(10), 6064.
- Topping, T., Murphy, M., & Saunders, S. (2023). Enhanced assessment and learning through adaptive comparative judgement. In *Proceedings of the International CDIO Conference* (pp. 379–389). CDIO Initiative.
- Turnbull, A., Turnbull, R., & Wehmeyer, M. L. (2015). Inclusive education and self-determination: Key ingredients for success. *Exceptional Children*, 81(4), 459–477.
- Turnbull, A., Turnbull, R., Wehmeyer, M., & Shogren, K. A. (2007). *Families, professionals, and exceptionality: Positive outcomes through partnerships and trust*. Pearson.
- Turnbull, R., Turnbull, A., Wehmeyer, M. L., & Shogren, K. A. (2015). *Exceptional lives: Special education in today's schools* (8th ed.). Pearson.
- UNESCO. (1994). *The Salamanca statement and framework for action on special needs education*. Author.
- UNESCO. (1994). *The Salamanca statement and framework for action on special needs education*. UNESCO.
- UNESCO. (2008). *Education for all monitoring report*.
- UNESCO. (2017). *A guide for ensuring inclusive and equitable quality education*. UNESCO.
- UNESCO. (2020). *Global Action Programme on Education for Sustainable Development (GAP-ESD)*.
- United Nations. (1989). *Convention on the Rights of the Child*.
- United Nations. (2006). *Convention on the Rights of Persons with Disabilities*.
- Velardo, S., & Elliott, S. (2021). Co-interviewing in qualitative social research: Prospects, merits and considerations. *International Journal of Qualitative Methods*, 20, 16094069211054920.
- Wong, Z. Y., & Liem, G. A. D. (2022). Student engagement: Current state of the construct, conceptual refinement, and future research directions. *Educational Psychology Review*, 34(1), 107–138.

- World Bank. (2018). *Barriers to inclusive education*. World Bank Group.
- Yin, R. K. (2009). *Case study research: Design and methods* (4th ed.). SAGE Publications.
- Zarifova, Z. M. (2025). Effective methods for developing empathy and emotional intelligence in preschool-aged children. *Bulletin News in New Science Society International Scientific Journal*, 2(2), 287–294.
- Zuhri, H. H., & Huda, M. (2024). Enhancing educational ecosystems: Implementing Peter Senge's learning organization model in Islamic boarding schools. *Munaddhomah: Jurnal Manajemen Pendidikan Islam*, 5(2), 222–234.



5. What is your highest academic qualification?

MPhil [ ]      M. Ed [ ]      Dip. Ed [ ]

B. Ed [ ]      Cert.[ ]      Any other please specify \_\_\_\_\_

6. Specialized Area:

Early Childhood Education [ ]      Basic Education [ ]

Any other, please specify \_\_\_\_\_

7. Teaching experience: 2-5 [ ]      6-10 [ ]      11-15 [ ]

16-20 [ ]      21 and above [ ]      below two [ ]

8. Indicate your position in your school

Head teacher [ ]      Early childhood coordinator [ ]

Class teacher [ ]      Any other, please specify \_\_\_\_\_

A. Please tick (√) for the statement that state degree to which you agree or disagree. There is no wrong or right answer. 1 (Strongly agree), 2 (Agree), 3 (Strongly disagree), 4 (Disagree)

### SECTION B

SN	STATEMENT	SA	A	SD	D
10	Teachers use various instructional materials to cater to different learning styles.				
11	Teachers adjust the pace of their lessons based on individual learners' needs.				
12	Teachers use small group instruction to address the needs of diverse learners.				
13	Teachers incorporate visual aids to support various learning styles in their lessons.				
14	Teachers adapt classroom activities to be inclusive of all learners, including those with special needs.				
15	Teachers regularly assess individual progress to tailor				

	instruction accordingly.				
16	Teachers use differentiated questioning techniques to challenge learners at various levels.				
17	Teachers create flexible groupings to facilitate peer learning and support.				
18	Teachers use technology to provide personalized learning experiences for diverse learners.				
19	Teachers receive adequate training on differentiating instruction for diverse learners.				
<b>SECTION C</b>					
20	Teachers use observational assessments to gauge learners' skills and behaviors.				
21	Teachers use standardized tests to assess the academic progress of learners.				
22	Teachers adjust their assessment strategies based on individual learners' needs.				
23	Teachers involve learners in self-assessment activities to promote reflection.				
24	Teachers use performance-based assessments to understand learners' practical skills.				
25	Teachers use portfolios to track and assess learners' growth over time.				
26	Teachers involve parents in the assessment process to get a comprehensive view of learners' progress.				
27	Teachers regularly assess individual progress to understand each learner's development.				
28	Teachers incorporate formative assessments to provide ongoing feedback to learners.				
29	Teachers involve learners in self-assessment activities to encourage reflection on their own learning.				
<b>SECTION D</b>					
30	Teachers encourage cooperative learning activities to promote interaction among learners.				

31	Teachers use group projects to help learners work together and build social skills.				
32	Teachers create a classroom environment that celebrates diversity and inclusivity.				
33	Teachers implement peer mentoring programs to foster relationships between learners.				
34	Teachers facilitate regular class meetings where learners can express their feelings and opinions.				
35	Teachers provide opportunities for learners to share their personal stories and experiences.				
36	Teachers model positive social behaviors and communication skills for learners				
37	Teachers create diverse seating arrangements to encourage interaction among different learners.				
38	Teachers establish classroom rules that promote respect and inclusion for all learners.				
39	Teachers provide support and interventions for learners who struggle with social interactions.				
<b>SECTION E</b>					
40	Classroom layouts are modified to create accessible learning spaces for all learners.				
41	Visual aids are used to support learners with different learning needs.				
42	Flexible classroom seating arrangements support various learning styles and needs.				
43	Classroom environments are designed to reduce distractions and enhance focus for all learners.				
44	Strategies are employed to make physical spaces accessible for learners with mobility challenges.				
45	Classroom routines are structured to accommodate different learning speeds and needs.				
46	Support materials for learners with language barriers are readily available and accessible.				

## **APPENDIX B**

### **INTERVIEW GUIDE FOR HEAD TEACHERS**

Hello, and thank you for participating in this interview. My name is Zubeida Abdul-Mumeen and I am conducting research to better understand early childhood education in the Tamale Metropolis. Specifically, I am interested in exploring the teacher inclusive education practices in early grade centres in the Tamale Metropolis, as well as to examine how teachers differentiate instructions for diverse learners in early childhood centres in the Tamale Metropolis, assess teachers' assessment procedures for diverse learner's performance in the early childhood centres in Tamale Metropolis, explore how teachers facilitate socialization among learners in inclusive classroom environments in the Metropolis, identify environmental adaptations implemented by teachers to support diverse learners needs in the early childhood centres in Tamale Metropolis.

Your input is incredibly valuable to this research, and i greatly appreciate your willingness to share your thoughts and experiences. Please rest assured that all information shared during this interview will remain confidential, and your identity will be protected.

Thank you.

### **SECTION A**

1. How do you assess the different learning styles and needs of your students, and how does this information influence your lesson planning?
2. What types of materials or resources do you use to support diverse learning needs, and how do you ensure they are accessible to all learners?
3. How do you involve students in the process of their own learning when differentiating instruction, and what role do they play in choosing or adapting their learning activities?

## **SECTION B**

4. How do you ensure that your assessments are fair and unbiased for all students, including those with special needs?
5. What strategies do you use to assess the effectiveness of your instructional methods for diverse learners?
6. How do you ensure that assessments are aligned with your instructional goals and objectives for diverse learners?

## **SECTION C**

7. What strategies do you implement to encourage interaction and collaboration among students with diverse backgrounds and abilities?
8. How do you create an inclusive classroom environment that supports social interactions among all students?
9. How do you address and support students who may struggle with social interactions or integrating into group settings?

## **SECTION D**

10. What types of physical changes have you made to the classroom environment to accommodate students with different learning needs?
11. How do you use classroom resources and materials to support learners with varying abilities and preferences?
12. How do you incorporate assistive technology or other tools to help meet the needs of students with specific learning challenges?

**APPENDIX C****OBSERVATIONAL GUIDE FOR EARLY CHILDHOOD TEACHERS****SECTION A**

<b>ITEMS</b>	<b>YES</b>	<b>NO</b>
1. Teacher provides different learning materials (e.g., visuals, objects, and texts) to cater to diverse learner needs.		
1. Teacher uses different group arrangements (e.g., small groups, pairs, and individual work) based on learners' strengths and needs		
2. Teacher offers a variety of activities to accommodate different learning styles (e.g., hands-on activities, discussions, and worksheets).		
3. Teacher asks questions of varying complexity to challenge advanced learners while supporting those who need extra help.		
4. Teacher integrates visual aids (e.g., charts, drawings, videos) to help diverse learners better understand concepts.		
5. Teacher allows learners to choose activities or tasks based on their interests and comfort levels.		
6. Teacher provides one-on-one support or attention to learners who require additional assistance.		

**SECTION B**


<b>ITEMS</b>	<b>YES</b>	<b>NO</b>
Teacher use different types of assessments (e.g., oral, written, practical activities) to suit learners' needs?		
Teacher provide personalized feedback to each learner based on their performance?		
Teacher observe and assess learners according to their individual learning styles (e.g., visual, auditory, kinesthetic)?		
Teacher incorporate visual aids (e.g., charts, pictures, objects) to support the assessment process for diverse learners?		
Teacher encourage peer assessment or group activities to promote social learning		
Teacher offer additional support or modify assessments for learners with special educational needs		

**SECTION C**

<b>ITEMS</b>	<b>YES</b>	<b>NO</b>
Teacher encourages peer interactions (e.g., group work, pair activities).		
Teacher uses mixed-ability grouping (e.g., students with different strengths working together).		
Teacher promotes respectful communication (e.g., teaching students to listen and respond politely).		
Teacher models inclusive behavior (e.g., engaging all students equally, showing acceptance of differences).		
Teacher facilitates cooperative learning activities (e.g., students collaborating to solve problems).		
Teacher encourages peer support and mentoring (e.g., assigning buddies or peer helpers).		
Teacher creates opportunities for whole-class discussions (e.g., encouraging all students to share their opinions).		

## APPENDIX D

### LETTER OF INTRODUCTION

 UNIVERSITY OF EDUCATION, WINNEBA  
FACULTY OF APPLIED BEHAVIOURAL SCIENCES IN EDUCATION  
DEPARTMENT OF EARLY CHILDHOOD EDUCATION  
P. O. Box 25, Winneba, Ghana [ece@uew.edu.gh](mailto:ece@uew.edu.gh)

FABSE/DECE/I.1

17<sup>th</sup> JUNE, 2024

The Director  
Ghana Education Service  
P.O BOX 1

Dear Sir/ Madam,

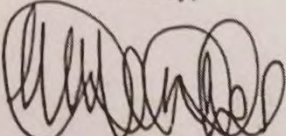
**INTRODUCTORY LETTER**


I kindly write to introduce to you **Ms. Zubeida Abdul-Mumeen** with index number: **8241900043** who is an M.Phil student at the Department of Early Childhood Education, University of Education, Winneba. She is in her final year and has to embark on her thesis on the topic: **“Teachers’ Inclusive Education Practices in Early Childhood Centres in the Tamale Metropolis”**.

**Ms. Zubeida Abdul-Mumeen** is to collect data for her thesis, and I would be most grateful if she could be given the needed assistance.

Thank you.

Yours faithfully,

  
**PROF. MICHAEL SUBBEY, (PhD.)**  
**HEAD OF DEPARTMENT**

 [www.uew.edu.gh](http://www.uew.edu.gh)

## APPENDIX C

### LETTER FROM GES

# GHANA EDUCATION SERVICE

*In case of reply the date and reference number of this letter should be quoted*

Our Ref: GES/NR/MEO/MC  
Your Ref: .....



Metropolitan Education Office  
P. O. Box 6, E/R  
Tamale, Northern Region  
Tel: 037-2022090

Date: September 19, 2024

REPUBLIC OF GHANA

Email: [tmetroedu@gmail.com](mailto:tmetroedu@gmail.com)

### LETTER OF INTRODUCTION

This is to introduce to you ~~Mr.~~ Abdul-Mumeen Zubeida, a Master of Philosophy (MPhil) student studying at the department of Early Childhood Education at the University of Education, Winneba. She requires some information (data) from school to write her thesis titled: **“Teacher Inclusive Education Practices in Early Childhood Centers in the Tamale Metropolis.”**

Kindly give her the necessary assistance she requires to enable her gather the information she needs for the research.

I count on your usual co-operation.

Thank you.

A handwritten signature in black ink, appearing to read 'Adam Karim'.

(ADAM KARIM)  
DEPUTY DIRECTOR – (SUPERVISION)  
for: METROPOLITAN DIRECTOR OF EDUCATION  
TAMALE

THE HEADTEACHERS CONCERN  
TAMALE METROPOLIS

\*HSRP\*