UNIVERSITY OF CAPE COAST

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EBENEZER ESHUN

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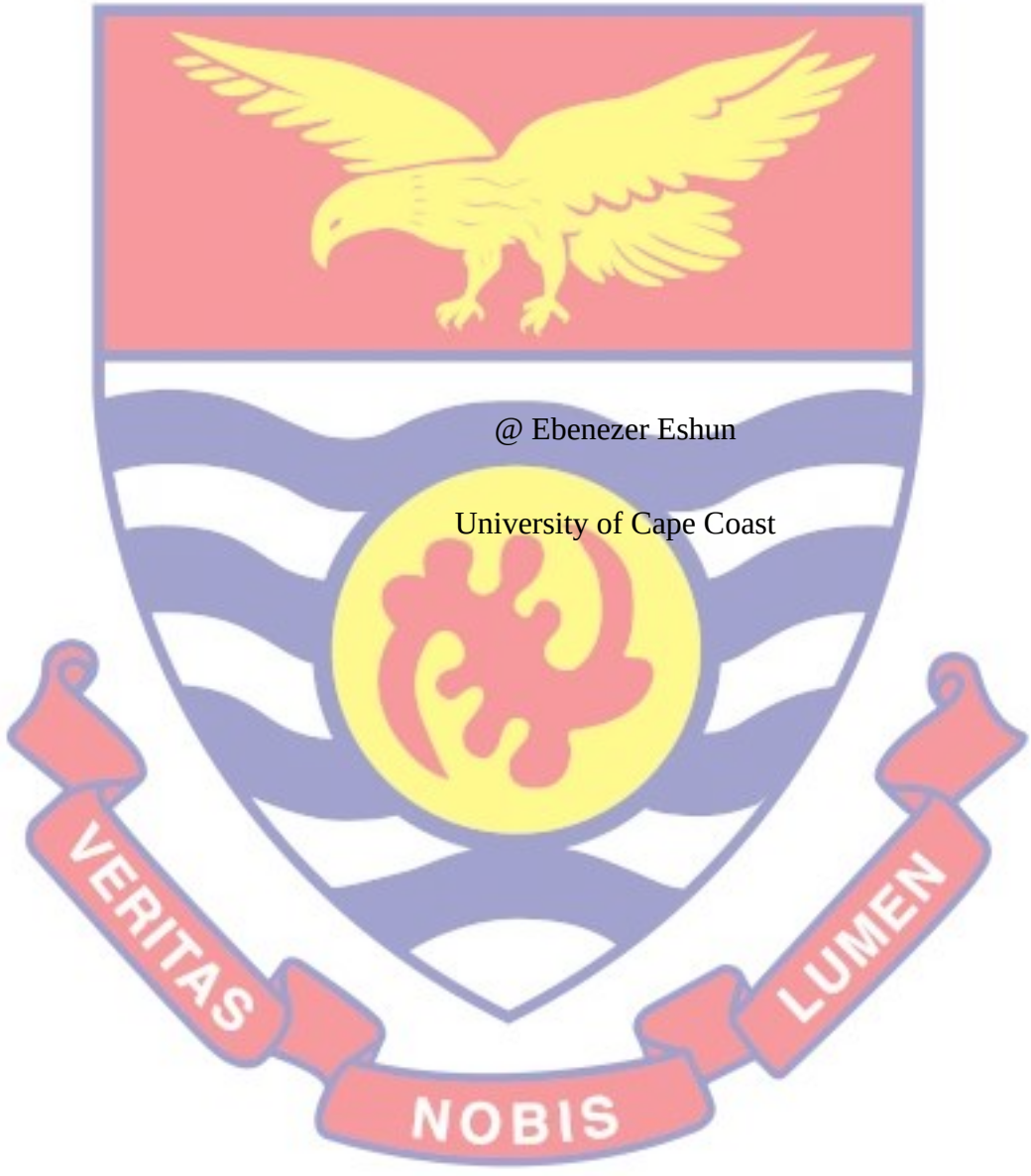

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BY

EBENEZER ESHUN

Thesis submitted to the Department of Education and Psychology of the Faculty of Educational Foundations, College of Education Studies, University of Cape Coast, in partial fulfilment of the requirements for the award of Master of Philosophy degree in Special Education.

JUNE 2021

DECLARATION

Candidate's Declaration

I hereby declare that this thesis is the result of my own original research and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature …… Date……

Name:……

Supervisor's Declaration

I hereby declare that the preparation and presentation of the thesis was supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.

Supervisor's Signature…… Date……

Name:……

ABSTRACT

The purpose of the study was to explore teachers' experience in assessment process for children at-risk of learning difficulties in Cape Coast Metropolis. The study adopted a qualitative approach with a phenomenological research design and was guided by five research questions. Purposive sampling, specifically criterion sampling, was used to select 16 participants comprising 8 males and 8 females. The research instrument for the data collection was a semi-structured interview guide. Thematic analysis was adopted to analyse the interview data. It was revealed in the study that teachers had some level of understanding regarding assessment and learning difficulties and they identified children at-risk of learning difficulties based on written exercises and observations. The results of the study showed that teachers made some remediation efforts, and referred children by advising their parents to take them to specialists for further assessment. It was further discovered in the study that teachers collaborated with parents, headteachers and their colleague teachers through Parent Association meetings and staff meetings. Finally, it was found in the study that the challenges teachers faced in assessment process are: inadequate textbooks, low parental involvement, inadequate resource teachers, and inadequate resource centres. Based on the findings, it is recommended that the local government authorities should collaborate with local businesses to provide basic schools with textbooks. The School Management Committee should sensitise parents through mediums such as the churches, mosques, and community centres. Lastly, the Ghana Education Service should provide schools with resource centres and appoint resource teachers to assist the regular education teachers.

KEYWORDS

Assessment Process

Learning Difficulties

Experience

Screening

Referral

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DEDICATION

To my mother, Mary Oduro

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LIST OF ACRONYMS

ADHD	Attention Deficit Hyperactive Disorder
ADP	Accelerated Development Plan
ASLHA	American Speech-Language-Hearing Association
ASP	Autism Spectrum Disorder
CBA	Curriculum Based Assessment
CCDRR	Centre for Child Development Research and Referral
CRT	Criterion-Referenced Test
DAT	District Assessment Team
DIET	District Inclusive Assessment Team
EAHCA	Education of All Handicapped Children Act
EGMA	Early Grade Mathematics Assessment
EGRA	Early Grade Reading Assessment
FAPE	Free Appropriate Public Education
GES	Ghana Education Service
GSS	Ghana Statistical Service
ICT	Information Communication Technology
IDEA	Individuals with Disability Education Act
IDEIA	Individuals with Disability Education Improvement Act
IE	Inclusive Education
IEP	Individualised Educational Plan
KG	Kindergarten
LDAA	Learning Disabilities Association of America
LDs	Learning Difficulties
MoE	Ministry of Education

NARCCSEND	National Assessment and Resource Centre for Children with Special Educational Needs and Disabilities
NCSP	National Council for Special Education
NJCLD	National Joint Committee on Learning Disability
PA	Parent Association
PTA	Parent-Teacher Association
PWDA	Persons With Disability Act
SAP	Special Attention Project
SEN	Special Educational Need
SGPIEG	Standards and Guidelines for Practice of Inclusive Education in Ghana
UCC	University of Cape Coast
UNIHSCF	Universal Newborn and Infant Hearing Screening and Child Find

CHAPTER ONE

INTRODUCTION

Introduction

This chapter presents the introduction of the study. It specifically deals with the background to the study, statement of the problem, purpose of the study, research questions, significance of the study, delimitations, limitations, operational definition of terms, and organisation of the rest of the study.

Background to the Study

Over the past years, schools exempted the enrolment of children with special educational needs (SEN) (Yekple, 2021; Mantey, 2017). This brought about the passage of federal laws in countries such as the United States. Some of these laws are the Education of All Handicapped Children Act (EAHCA), Individuals with Disability Education Act (IDEA) and the Free Appropriate Public Education (FAPE) which ensured that children who qualify for special education services were placed in the least restrictive learning environment (Kauffman et al., 2020). These federal laws gave recognition to the right of every child irrespective of his or her disability to be educated. This brought an increase in the number of children with SEN in regular education by 52.1% (Snyder, 2018). Nevertheless, it has been reported that meeting the educational needs of about 6.5 million school children with SEN appears to be a challenge (Snyder, de Brey, & Dillow, 2019).

In Ghana, the most significant expansion of universal education was the Accelerated Development Plan (ADP) introduced in 1951 which was aimed at achieving Universal Primary Education for all by abolishing tuition fees (Aziabah, 2018). After independence, the Education Act was introduced in 1961

which also made primary and middle school education free and compulsory for all children. From then on, several educational Acts, policies and legal frameworks such as the National Disability Policy of 2000, Special Educational Needs Policy Framework of 2005, Persons With Disability Act (PWDA) 715 of 2006, and the Inclusive Education (IE) policy (2015) have been passed to intensify the education of children with SEN. These provisions have significantly increased the number of children with SEN in the regular education classrooms in Ghana (Ametepee & Anastasiou, 2015).

Research shows that learning difficulties (LDs) are the common category of SEN among children in the regular education classrooms (Hayes, Dombrowski, Shefcyk, & Bulat, 2018) because it is often associated with developmental disorders such as Autism Spectrum Disorder (ASP), Attention Deficit Hyperactive Disorder (ADHD), and other social, behavioural, and emotional problems children have (Visser, Roschinger, Barck, Buttner, & Hasselhorn, 2020). Generally, the skills that are most often affected when a child has LDs are reading, speaking, writing, listening, reasoning, and solving arithmetic problems (Sardesai, 2015). However, LDs are not explicitly connected to a particular physical, intellectual, or sensory disability, even though children at-risk of LDs usually have problems in learning and in social adjustment (Owens, 2015). Alhassan and Abosi (2014) reported that children at-risk of LDs often fail class exercises, are disrespected by their peers, and sometimes, by teachers who should have defended and supported them.

In view of this, studies suggest that the difficulties children face in learning should be investigated through a systematic process (Miles & Miles, 2019; Gates, 2017). Teachers are responsible for initiating assessment process

by identifying children at-risk of LDs, making remediation efforts, and seeking assistance from other professionals when their remediation efforts do not improve children's learning (Cheng & Fox, 2017). This is consistent with the provision in the Standards and Guidelines for Practice of Inclusive Education in Ghana (SGPIEG) (Ministry of Education [MoE], 2015) which requires teachers to screen all children and refer those suspected of having SEN for further assessment by the District Inclusive Education Team (DIET) and later by the District Assessment Team (DAT). This provision was spearheaded by IDEA (2004) which mandates public school districts to identify, locate, and evaluate every child who may have SEN and therefore, require special education services.

Assessment process encompasses a series of activities that involve collaboration among teachers, parents, social workers, professionals, and other educators who work together to obtain educationally relevant information about a child for making legal and educational decisions (Briesch, Ferguson, Volpe, & Briesch, 2013). Notwithstanding, teachers are the direct implementers of the educational curriculum and usually the first to observe deviations in children's educational development (Mwanza, 2017). Therefore, they are to play their role effectively in gathering educationally relevant information about children who show consistent difficulties in academic areas such as reading, spelling, writing, speaking, listening, reasoning, and solving arithmetic problems. Teachers need to have understanding of the various assessment techniques for identifying children at-risk of LDs and be aware that all children, even those regarded as 'normal', learn in diverse ways (Genishi & Dyson, 2015).

Furthermore, according to the SGPIEG (MoE, 2015), an assessment shall cover the processes of assessing children with SEN to maximise their potential for learning and living within their communities. The processes involved in assessing children with SEN are screening, pre-referral, referral, evaluation, team conferencing, monitoring, and programme evaluation (Gyimah, Ntim, & Deku, 2010). According to the National Centre on Intensive Intervention (2018), screening as the first stage of assessment process, is the process of identifying children at-risk of not meeting grade-level learning goals. In view of this, teachers should identify reading, writing, and arithmetic problems with assessment instruments such as a behaviour checklist, and rating scale to check for warning signs that suggest a child may be at-risk of LDs.

Children with poor reading, writing and arithmetic skills, who are potentially at-risk of LDs should be identified as early as possible in order to avoid prolonged or serious problems. According to Virinkoski, Lerkkanen, Holopainen, Eklund, and Aro (2018), some scholars disagreed on whether teachers' informal ratings or screening tests best identify children at-risk of LDs. However, previous studies have supported the use of informal instruments for screening such as behaviour checklist, reading test, and rating scale by teachers to identify children at-risk of reading, writing, and arithmetic failure (Ou, Sambai, Yoneda, Pei, & Uno, 2018; Aftab, 2017). Virinkoski et al. (2018) further opined that the quality of teachers suspicion is determined by how well they capture children's true positive cases that turn out to be LDs with sufficient evidence, and avoid false cases that predict the risk of LDs even when children do not exhibit signs of persistent difficulties in learning.

According to Bellman, Byrne, and Sege (2013), the best way to improve learning for children at-risk of LDs should be through an assessment that follows a process. However, the efficacy of this largely depends on teachers' experience in assessment process (Reid, Elbeheri, & Everatt, 2015). In support of this, Gage, Adamson, MacSuga-Gage, and Lewis (2017) reported that teachers' experiences affected the academic achievements, social, emotional, and behavioural abilities of children at-risk of LDs. This suggests that teachers' experiences in assessment process cannot be overemphasised.

Statement of the Problem

Existing literature confirms that children at-risk of LDs in regular education have difficulties in learning (Westwood, 2016), yet it is not clear the extent to which they are being assessed through a systematic process to gather educationally relevant information needed to address their difficulties. Studies conducted in Ghana focused on the frequently used assessment tools by teachers (Frimpong & Osei, 2021; Asare, 2015; Titty, 2015) and pre-service teachers' perception on procedures to identify and assess children with SEN (Gyimah & Amoako, 2016). It appears that there is limited studies on teachers' experiences in assessment process for children at-risk of LDs despite concerns raised by researchers about the significance of teachers' identification of LDs, remediation efforts, concerns for referral, and collaboration with the multi-disciplinary team (Desta et al., 2017; Da Fonte & Barton-Arwood, 2017; Cantu, 2015; Briesch, Ferguson, Volpe, & Briesch, 2013). According to the SGPIEG (MoE, 2015), teachers as the primary agent of assessment, are to screen all children for LDs and refer those suspected of having LDs for further assessment by the DIET and later by the DAT. However, it appears that not much attention

is given to screening and referring children for further assessment. This seems to be hindering the optimal educational growth and development of children at-risk of LDs. Teachers' experience in assessment process has the propensity to hinder or improve the full potential of children at-risk of LDs (MacSuga-Gage & Lewis, 2017). This is because they are a valuable source of information to the assessment team and often the first to observe difficulties children have in learning (Moothedath & Vranda, 2015). This gap in literature is of utmost importance and calls for an investigation.

Purpose of the Study

The purpose of the study was to explore teachers' experiences in assessment process for children at-risk of LDs in basic schools in Cape Coast Metropolis. Specifically, the study sought to explore:

1. Teachers' understanding of assessment.
2. Teachers' understanding of learning difficulties.
3. Roles of teachers in assessment process.
4. Challenges of teachers in assessment process.
5. Teachers' suggestions on improving assessment of children at-risk of learning difficulties.

Research Questions

The study was guided by five research questions. These are:

1. How do teachers understand assessment?
2. How do teachers understand learning difficulties?
3. What roles do teachers play in assessment process?
4. What challenges do teachers face in assessment process?

5. What suggestions can teachers give to improve assessment of children at-risk of learning difficulties?

Significance of the Study

The findings of the study would highlight the challenges teachers face in assessment process and weaknesses in their professional competency in identifying children at-risk of LDs, and the remediation efforts they make to improve children's academic performance. This information would serve as a reference for the Ghana Education Service (GES) to provide appropriate training programmes for teachers. Furthermore, the findings of the study would reveal the need for the government of Ghana to allocate an adequate budget for the provision of special education services for children at-risks of LDs in Ghana. Lastly, the findings of the study would contribute to the global knowledge and understanding of teachers' identification skills, instructional adaptation skills, collaboration skills, and referral concerns regarding children at-risk of LDs.

Delimitations

The study geographically focused on basic schools in the Cape Coast Metropolis. Contextually, the study was delimited to children at the kindergarten (KG) and lower primary. This is because children's academic success largely depends on their early years of learning experiences and the earlier their LDs are identified, the easier and effective they can be managed (Mensah & Badu-Shayar, 2016). Additionally, the study focused on LDs because it is the common category of SEN in a typical classroom setting (Early Grade Reading Assessment [EGRA] and Early Grade Mathematics Assessment [EGMA], 2015). Lastly, the study was delimited to teachers because they are

the main implementers of the educational curriculum hence, they can provide reliable information for the study (Torto & Onomah, 2018).

Limitations

The findings of the study may not be generalised to other settings because the study was conducted in Cape Coast. Also, teachers might have exaggerated in their responses to the research questions during the interviews only to appear that they are doing their work efficiently. Lastly, during the one-on-one interviews, some other teachers, and children in the school continuously interrupted the interviews.

Operational Definition of Terms

The following terms used in this study are operationally defined:

Learning Difficulties (LDs): LDs refer to an individual's inability to listen, speak, read, spell, think, write, reason, or solve arithmetic problems.

Assessment Process: Assessment process means the stages involved in assessing children (that is, screening, pre-referral, referral, evaluation, team conferencing, monitoring, and programme evaluation).

Experience: Experience is the process of personally living through an activity that leads to the acquisition of knowledge and skills.

Screening: Screening is the process of identifying children at-risk of LDs.

Referral: Referral means asking a more qualified professional to help one to know more about a suspected difficulty a child has in learning.

Organisation of the Rest of the Study

Chapter two reviewed literature related to the study specifically, the theoretical framework, conceptual review, and empirical review. The third chapter presents the research methods used. They are: research design, study

area, population, sample and sampling procedure, data collection instrument, pilot-testing of research instrument, criteria to determine trustworthiness, data collection procedures, ethical considerations, data processing and analysis. Results and discussion of data collected were presented in chapter four. Finally, summary, key findings, conclusions, recommendations, and areas for further research were presented in chapter five.

CHAPTER TWO

LITERATURE REVIEW

Introduction

The importance of reviewing literature in research work cannot be overemphasised because it helps to put the problem under investigation in a proper perspective. This chapter reviews literature under the following major sub-headings:

a) theoretical framework
b) conceptual review
c) empirical review

Theoretical Framework

The study was based on Jean Piaget's cognitive theory. Piaget's cognitive theory does not only explain the changes in reasoning levels of children acquiring new ways of understanding but it also provides a foundation for identifying children at-risk of LDs and making remediation efforts to improve their academic performance (Desta et al., 2017).

Jean Piaget's Cognitive Theory

Piaget identified four stages of children's cognitive development. The sensory-motor stage (birth to age 2) is the first stage of an infant's mental and cognitive development. Here, children know the world mainly through their motor movements and senses. Infants continuously manipulate, listen, touch, look, and even chew and bite objects (Piaget & Inhelder, 2013). To assess the learning capability of children at this stage, they should be given the opportunity to interact with the environment in unobstructed and harmless ways in order to begin understanding the world (Blessing, 2019). In practical terms,

children at the crèche often fall into this stage, hence, large blocks of uninterrupted time, where they can play and make choices, set the stage for collecting relevant information about each child (Wood, 2014). Furthermore, teachers should lay a learning foundation by providing assessment through play activities where children will have the opportunity to explore the environment (Undiyaundeye, 2013). As children play with objects and their peers, teachers can take note of warning signs such as poor eye contact, inability to follow sounds, inability to hold objects, repetitive behaviours among others to identify those at-risk of having developmental delays.

Pre-operational stage (age 2 to age 7) is the second stage of Piaget's cognitive development. At this stage, there is an increase in language skill, symbolic thought, egocentric perspective, and limited logic (Haywood, 2020). Nursery and KG children often fall into this stage. Therefore, teachers can engage children in problem-solving tasks with the use of materials such as water, blocks and sand while they are working on the task. Teachers should engage them in conversation (Warneken, Steinwender, Hamann, & Tomasello, 2014). Information on children's strengths and weaknesses can be recorded with anecdotal notes, photos, and videos to provide proof, when children are able or unable to demonstrate what they have learnt orally (Bates, Schenck, & Hoover, 2019). Piaget tried the idea of conservation by pouring equal volumes of water into two similar bowls. After the water from one bowl was poured into a larger bowl, the level is lower and the child thinks there is less water in the larger bowl (Ojose, 2008). This implies that children's perception at this stage is restricted to one aspect or dimension of an object at the expense of the other aspects.

Concrete operational stage (age 7 to age 11) is the third stage of Piaget's cognitive development. It is characterised by significant cognitive growth, where children's development of language and acquisition of basic skills speeds up intensely (Piaget, 2018). Children employ their senses to know three or four dimensions simultaneously (Ojose, 2008). For instance, in the liquids experiment, if the child notices the lowered level of the liquid, he or she also notices the dish is larger, seeing both dimensions at the same time. Additionally, instead of abstract activities, teachers can assess children on hands-on activities to enable children to manipulate real objects (Schwichow, Zimmerman, Croker, & Hartig, 2016). These activities allow children to get their hands on objects as useful tools for solving problems. Teachers should make use of manipulative materials such as the abacus, alphabet board, Cuisenaire rods, dice, algebra cubes, pattern blocks, spinners, geoboards, and counters in identifying children at-risk for LDs (Manches & O'Malley, 2016).

Formal operational stage (11 years and above) is the last stage of Piaget's cognitive development. At this stage, children have the ability to form hypotheses and deduce possible consequences. This allows them to construct concepts on their own (Piaget & Inhelder, 2013). Additionally, children have passed the using solid materials to facilitate their understanding instead, they are capable of thinking in dynamic and reliable means (Ahmad, Ch, Batool, Sittar, & Malik, 2016). Children at this stage are more efficient and use logical reasoning. According to McLeod (2018), children begin to develop abstract thought patterns where symbols are used in reasoning (that is, children are moving beyond memorisation to understanding). Carpendale, Lewis, and Muller (2019), posited that at this stage, children have the capacity to learn

skills, knowledge, and concepts and apply them in new situations. Although Piaget's cognitive theory has been criticised by Babakr, Mohamedamin, and Kakamad (2019) that it overestimates the ability of adolescence, it underestimates infant's capacity, and it had some ethical and bias problems as he studied his own children. However, its educational benefits over the past years cannot be overemphasised.

Implication of Piaget's Cognitive Theory to the Study

The relevance of Piaget's cognitive theory to the current study is that teachers should take into cognisance the stages of children's cognitive development in order to make children's assessment age-appropriate in content and in the method of data collection. Additionally, teachers should recognise that children need familiar contexts to demonstrate their abilities. Piaget's cognitive theory guides teachers to use appropriate assessment tool(s) and activities that meet the cognitive abilities expected of children based on their age in identifying those at-risk of LDs (Gareis & Grant, 2015). Information obtained from an inadequate assessment may not reflect the unique educational needs of children. Therefore, educational decision(s) taken based on the information may not address children's difficulties in learning. Essentially, Piaget's cognitive development theory helps teachers to appreciate the discrepancies in children's cognitive abilities in order to adjust their assessment accordingly. This will help to minimise false suspicion about children at-risk of LDs (Lefa, 2014).

Conceptual Review

This section presents concepts in the study that are relevant to understanding the phenomenon under study.

Assessment

Assessment is a broad concept in education and it does not have a uniform or single definition. According to the National Council for Special Education [NCSP] (2006), assessment in special education is a systematic process of collecting educationally relevant information about a child to make legal and educational decision(s). Assessment requires a comprehensive plan to collect information about children's holistic needs (Yell, Shriner, & Katsiyannis, 2006). It is, therefore, evident from the definition that assessment is a process.

Assessment Process in Special Education

1. Screening: Screening is defined as the process of assessing children in a large group to identify those who may need further evaluation to determine the extent of their problem (McKenzie et al., 2019). Simply, screening is done to enable teachers and other professionals to determine whether a child is eligible for special education services. Additionally, Gyimah, Ntim, and Deku (2010) opined that in screening several children in the classroom, teachers can identify those who perform below the normal ranges of behavioural or intellectual achievement. Gyimah, Ntim, and Deku outlined five vital issues associated with screening. These are:

1. screening is part of an assessment.
2. screening targets many children.
3. screening identifies children at-risk of having problems.
4. screening helps to seek a thorough assessment.
5. screening helps to know children who need special education services.

According to the National Joint Committee on Learning Disabilities [NJCLD] (2007), the aim of screening is to determine if additional evaluation is required and in what developmental domains (that is, cognitive, physical, communication, social, emotional, and adaptive behaviour). The NJCLD added that in the United States, there are large scale state-wide screening programmes such as Universal Newborn and Infant Hearing Screening and Child Find (UNIHSCF), a component of IDEA (2004) that requires states to have a system to identify, locate, and evaluate all children with SEN (birth-21 years), who need special education services.

Additionally, a study conducted by Bornstein and Hendricks (2013), suggested that teachers should work in their capacity to screen children in reading, writing, mathematical reasoning, spelling among others in their classrooms because state-wide screening may not be done on a regular basis. This is essential because teachers are usually the first to witness and record the difficulties children have in learning (Torto & Onomah, 2018). Screening tools or results of screening are not intended for diagnosis, and placement purposes instead, for identifying children at-risk conditions (Yell, Shriner, & Katsiyannis, 2006). In education, screening may take different forms such as cognitive, physical, social, emotional, and behavioural. For instance, before entering preschool, a child may be screened to determine if he or she is intellectually, emotionally, physically, and socially ready to start school.

Several procedures can be employed to identify children who have at-risk conditions. In the regular education classrooms, the procedures generally fall into the category of informal assessment (Angelo & Cross, 2012). Informal procedures used in the regular education classrooms include observations,

checklist, work sample analysis, criterion-referenced test, rating scale, curriculum-based assessment, and portfolio assessment. The classroom teacher is usually the first professional to identify children at-risk of having a special need through the use of informal assessment procedures, although a paediatrician or a family member might begin the assessment process (Salvia, Ysseldyke, & Witmer, 2017). Salvia and Ysseldyke further noted that the teacher should review a child's work and conduct more intensive observations of a child's behaviour and academic performance to take note of suspected problems.

Studies have highlighted the significance of teachers collaborating with parents and specialists to formulate a developmental and social history about a child (Schultz, Able, Sreckovic, & White, 2016; Parrott & Keith, 2015). Together, they may fill out checklists, answer questions, and write a report addressing a child's strengths and weaknesses over some time (Bateman & Bateman, 2014). The focus here is to make suspicions in areas such as genetic factors, developmental milestones, health history, family relationships, friendships, hobbies, academic performance, and behaviour (Salvia, Ysseldyke, & Witmer, 2017).

2. Referral: A referral becomes necessary whenever there is sufficient evidence to suggest that a child has a form of difficulty that is beyond the teacher's ability to help him or her (Hinchliffe & Campbell, 2016). The aspect of children's difficulty may be behavioural, hearing, visual, motor skills, cognitive, communication, or health (Zablotsky et al., 2019). According to Heine, Slone, and Wilson (2016), a referral is defined as the process whereby assistance is

sought from qualified professionals or specialists for a more thorough evaluation.

Gyimah and Yidana (2008) emphasised that teachers must first attempt remediation efforts if they have to refer a child. Remediation effort means the initial steps the teacher takes in the classroom to assist a child to manage or possibly overcome a suspected difficulty. For example, the child's seating position can be changed. Alternatively, the teacher can adapt instruction and teaching strategies that are suitable for the child's learning. These initial steps are known as the pre-referral stage (Yell, Shriner, & Katsiyannis, 2006). Hubermann, Boychuck, Shevell, and Majnemer (2016) argued that it is when these efforts made by the teacher fail to make any significant improvement on the child's difficulty before a referral can be made.

Additionally, teachers who identify characteristics of the existence of a developmental disability or at-risk conditions can refer to professionals such as a psychologist, medical specialist, therapist among others where appropriate to focus on a specific area of the child's development (Briesch, Ferguson, Volpe, & Briesch, 2013) by seeking the consent of parents or guardians (Klingner & Harry, 2006). Lewis and Doorlag (2005) indicated that teachers must clearly explain issues related to the referral of children to parents or guardians. For example, the child's difficulty, why the referral is necessary, the professional the child is going to be referred to, and the procedures going to be used should be communicated to parents or guardians. Parents or guardians hold the legal right to object or approve any educational decision made for their child (Gyimah & Yidana, 2008). Gyimah and Yidana outlined three reasons why seeking the consent of parents or guardians is vital. These are:

1. Parents or guardians are the key stakeholders of their children so they have the right to know what problems their children are having.
2. Parents or guardians may be interested in knowing the various steps that are to be taken and what procedures will be used in the evaluation.
3. Parents or guardians may take part in the evaluation of their children by providing vital information to those who do a comprehensive evaluation.

In Ghana, there are hospitals and some facilities that referrals can be made to. The National Assessment and Resource Centre for Children with Special Educational Needs and Disabilities (NARCCSEND) at Achimota, Accra has been solely established to screen, evaluate, and provide advice on the educational placement of children with SEN. Also, there are units at Korle-Bu Teaching Hospital, Accra, and Okomfo Anokye Teaching Hospital, Kumasi where referrals can be made. At the University of Education, Winneba, there is a Speech and Hearing Unit where children with hearing problems can be referred. Additionally, there is a hearing aid and assessment centre at Cape Coast School for the Deaf. The Centre for Learning Disabilities Assessment at Weija, Accra provides psycho-educational assessment for ADHD, ASD, visual processing disorder, auditory processing disorder, dyslexia, dyscalculia, and dysgraphia. Newstar Ear Centre Ghana Limited is an audiologist clinic located at Tema community 11, Accra which provides diagnosis for hearing problems.

3. Evaluation: Wenger, Schulze, and Kottorp (2021), defined evaluation as a systematic process in which professionals from various disciplines such as medicine, education, psychology, and social services comprehensively diagnose to determine the type, nature, and degree of the disability a child may be having. The main aim of ensuring that an evaluation is comprehensive is to identify the

individual child's unique needs, strengths and weaknesses, and develop procedures and resources to address those needs to prevent it from getting worse (NJCLD, 2007).

The evaluation of a child occurs through diverse settings and considers multiple viewpoints offered by educators and other professionals. This is called a multidisciplinary approach (American Speech-Language-Hearing Association [ASLHA], 2007). According to the ASLHA, a multidisciplinary approach is pertinent in gathering and interpreting information obtained from an evaluation from different sources. When a child is referred for a comprehensive evaluation, experts from various disciplines (that is, a multidisciplinary team) evaluate the child and collectively discuss information or results of their respective evaluation.

Roles of the Multi-Disciplinary Team

Neurologists: Neurologists are medical practitioners who specialise in the development and functioning of the central nervous system (that is, the brain and spinal cord) (Shevell, 2018). Shevell further opined that neurologists can detect brain abnormalities that affect mental health and physical developments and traces of chromosomal abnormalities, visual-motor difficulties, and cerebral palsy among others.

Psychiatrists: Psychiatrists are medical practitioners who are trained to diagnose emotional and behavioural conditions such as ADHD which is usually characterised by inattentiveness, hyperactivity, impulsivity, and ASD which is also often characterised by communication, social and behavioural difficulties respectively (Thom, McDougle, & Hazen, 2019).

Speech and Language Therapists: Speech and language therapists teach and or suggest techniques that are useful in helping a child to acquire speech and language, participate actively in classroom instruction, and boost self-esteem and confidence (Northcott, Simpson, Moss, Ahmed, & Hilari, 2017).

School Psychologists: School Psychologists administer, score, and interpret intelligence tests. They also assist in decisions concerning a child's ability to do regular school work and multidisciplinary team meetings (Bahr et al., 2017). School psychologists are assigned to schools to provide consultation and intervention services (Brown, Holcombe, Bolen, & Thomson, 2006).

Special Education Teachers: Special education teachers have adequate skills and knowledge to apply research-based instructional techniques and approaches to teach children or small groups of children with SEN (Kauffman, Hallahan, Pullen, & Badar, 2018). They also assist regular education teachers to teach certain skills in resource rooms and make adaptations for children with SEN (Hillel-Lavian, 2015).

Regular Education Teachers: Regular education teachers supply information to other professionals and parents about a child's classroom achievement. They are the main implementers of the general education curriculum (that is, teaching the topics in the syllabus and being responsible for extra-curricular activities) (Wang, & Cheng, 2009).

Paediatrics: Paediatrics are family doctors who are concerned with early childhood diseases (that is, from birth to the age of 16) (Dieckmann, Brownstein, & Gausche-Hill, 2010). Dieckmann, Brownstein, and Gausche-Hill further noted that paediatrics give treatment to babies in special care baby units, neonatal intensive care units, and maternity units.

Furthermore, making the assessment team multidisciplinary is necessary because when a child is suspected of having LD, it is important to find out the extent to which the difficulty has affected his or her academic competence (Doyle, 2008). Collectively, the assessment team can use tests and procedures that are appropriate, effective, and efficient for evaluation. Therefore, through a multidisciplinary approach, the extent of the child's problem will be best understood.

Additionally, the NJCLD (2007) stated that a comprehensive evaluation should involve the use of multiple assessment procedures (that is, standardised assessment and informal assessment). This implies that the use of a single assessment procedure does not make an evaluation comprehensive; rather, the use of linguistically and culturally sensitive instruments to assess children with potential LD do. Given this, an evaluation of a child's special needs should cover multiple areas of functioning including the following domains outlined by the NJCLD:

1. Communication: It comprises speech or language form, content, and use for receptive and expressive purposes.
2. Sensory functions: It includes auditory, haptic, kinaesthetic, and visual systems.
3. Cognition: It involves perceptual organisation, memory, concept formation, attention, and problem-solving.
4. Social-emotional adjustment: It consists of behaviour, temperament, affect, self-regulation, play, and social interaction.
5. Numeracy: It includes number recognition and number concepts.

6. Emergent literacy: It comprises phonological awareness and print awareness.
7. Motor functions: It involves gross, fine, and oral motor abilities.

Teachers have for a long time been recognised as significant professionals in the provision of education for children (Torto & Onomah, 2018). Teachers select learning tasks and materials, make decisions on appropriate instructional and motivation strategies, present instruction, and test for learning outcomes. Teachers can through their interactions with children, tell how they perform, hence, they can furnish the assessment team with information on how any particular child responds to instruction and where their difficulties lie.

4. Team Conferencing: Teaming conferencing is the stage where results obtained from the evaluation are discussed by the assessment team to determine whether a child qualifies to receive individualised special education and related services (Jones & Peterson-Ahmad, 2017). Jones and Peterson-Ahmad further noted that some of the issues discussed among the membership include:

1. The nature of the disability.
2. The degree of disability.
3. The most appropriate educational environment suitable for meeting educational needs.
4. The need for special education and related services.
5. The design of individualised educational plan to meet the needs.

There is no hard and fast rule on the composition or the type of professionals who should constitute the conference membership. Whatever the composition, parents and the child (that is, if he or she is capable of expressing

himself or herself) should not be left out (Martin et al., 2006). However, it appears there is rarely the existence of team conferencing in Ghana when it comes to assessment of children with SEN (Gyimah & Yidima, 2008).

Developing an Individualised Educational Plan (IEP)

In the United States of America, the IDEA Public Law 94-142 mandates the provision of an IEP for individuals between the ages of 3 and 21 who qualify to receive special education services. Similarly, in Ghana, the SGPIEG (Ministry of Education [MoE], 2015) states that the IEP should form part of the school-based assessment for children with SEN so long as they qualify to receive special education services. The IEP is an essential legitimate document that expounds the child's educational and functional needs, the support services the school and other professionals will provide, and how the child's progress would be measured (Kartika, Suminar, Tairas, & Hendriani, 2018). Simply, an IEP is a written document that provides information on what strengths and weaknesses a child has and measures to help the child to overcome or manage the difficulties. Professionals from different disciplines and parents are involved in developing the IEP (Rotter, 2014). Kirk, Gallagher, Coleman, and Anastasiow (2009) outlined the members of the IEP team as prescribed by law as follows:

1. One regular educator.
2. Parent or guardian of the child.
3. A special educator.
4. A principal or administrator who sees to it that the child's plan is implemented.

5. Personnel whose expertise can help develop a plan (for example, school psychologist, social worker, and so on).

Additionally, Kirk, Gallagher, Coleman, and Anastasiow (2009) outlined seven main components of an IEP. These are:

1. A statement of the child's present levels of academic achievement and functional performance, including the extent to which the child's disability interferes with his or her involvement, participation and progress in the general education curriculum.
2. A statement of quantifiable annual goals which include academic and functional goals designed to meet the child's special needs to allow him or her to be involved in, participate and make improvement in the general education curriculum.
3. A description of the procedures to be used to measure the child's progress toward achieving the annual goals.
4. A statement of the support programme and provision of special education services, other related and supplementary services and aid, based on peer-reviewed research work for school staffs that will be given to the child to:
    a. Progress toward meeting the stated annual goals.
    b. Be educated, involved and participate in extracurricular activities with the children with disabilities and those without disabilities and make progress in the general education curriculum.
5. A justification of the extent to which the child will not be involved in extracurricular activities in the regular classroom with his or her 'non-

disabled' counterparts in the regular classroom and in non-academic activities.

6. If the IEP team identifies that an alternative assessment should be conducted for the child instead of a specific regular state or district-wide assessment of children's achievement, an account of why the:
    a. Child cannot take part in the regular assessment.
    b. Alternate assessment considered suits the child's needs.
7. A statement of the projected date at which the special education support services, and other related services, location, supplementary modification and aids will commence.

5. Monitoring: Barger, Rice, and Roach (2021) defined monitoring as a process whereby data is gathered periodically to determine the extent to which a child responds to an educational intervention programme put in place to manage his or her difficulties. It will not be enough to place a child with SEN in an educational setting and leave him or her there without being monitored. Gyimah, Ntim, and Deku (2010) outlined six reasons why monitoring is necessary. These are:

1. It helps in identifying a child's strengths and weaknesses.
2. It is a way to check whether those giving services to the child are doing their work well.
3. It helps in identifying other services that may be essential to supplement what is in vogue.
4. It prevents wastage since weaknesses are identified and intervened early enough.
5. It tends to focus attention on practices that work.

6. It is a way to identify whether goals set for the child are being met.

Furthermore, professionals who work with the child should record information about the child's daily, weekly and monthly activities over time to track the progress the child is making (Etscheidt, 2006). This typically falls under the responsibilities of teachers, because they are the individuals working with the child on a regular basis (Torana, Yasina, Chiria, & Tahara, 2010). Torana, Yasina, Chiria, and Tahara further asserted that teachers usually have a fair idea about a child's present level of performance so they can tell if the child is making progress or not.

Although teachers are known to be the professionals who often keep track and notice of the progress a child with IEP is making, parents have a key role to play in monitoring a child's progress (Rogers, Wiener, Marton, & Tannock, 2009). While at home, parents should take note of changes in their child's behaviour and provide information to teachers or other professionals about how well their child is responding to a plan (Cohen, 2009).

6. Programme Evaluation: This stage of assessment process is characterised by two activities. These are: programme and evaluation. Programme deals with an educational plan or series of activities put in place to be followed to help a child overcome identified problem(s) while evaluation is an examination of the effectiveness of an intervention plan (Hohlfeld, Harty, & Engel, 2018). Simply, programme evaluation implies judging the quality of a plan put in place for a child to determine its effectiveness. Although evaluating a plan developed for a child with LDs is done by the multidisciplinary team, teachers and parents are often the first to notice any optimistic change or development in the child's performance (Bourke & Burgman, 2010). It, therefore, suggests that teachers

should make use of periodic observation with systematic records to determine the improvement or setbacks of a plan developed for a child.

Schools should evaluate children with IEP annually to determine if the child is achieving the annual goals (Kirk, Gallagher, Coleman, & Anastasiow, 2009). Additionally, according to the NCSP (2006), a comprehensive re-evaluation should be done by the IEP team every three years to address any delay of expected progress anticipated by the teacher, parents, and other professionals working with the child. The re-evaluation happens after a child's initial evaluation to completely look at a child's needs again (Handbook, 2020). This is to gather enough data to determine whether a child is still eligible for special education services (that is, if his or her needs and abilities have changed).

Learning Difficulties (LDs)

The terms 'Learning Disabilities' and 'Learning Difficulties' are often used synonymously (Lamsa, Hamalainen, Aro, Koskimaa, & Ayramo, 2018). The United States prefers the term 'Learning Disabilities', while in the United Kingdom, Ghana, and some parts of Australia, the term 'Learning Difficulties' is preferred (Early Grade Reading Assessment [EGRA] and Early Grade Mathematics Assessment [EGMA], 2015; Special Attention Project [SAP], 2011). According to the Learning Disabilities Association of America (LDAA) (2017), 'Learning Disabilities' is a clinical condition that is diagnosed by group of experts such as psychologists and paediatricians with the use of standardised assessment procedures. The LDAA further noted that regular education teachers do not have the expertise to diagnose a child with 'Learning Disabilities' instead they can suspect a child at-risk of 'Leaning Difficulties'.

However, generally, these terms are used to describe persistent difficulties children have in reading, writing, reasoning, spelling, speaking, listening, and solving arithmetic problems (Sardesai, 2015). A child at-risk of LDs may exhibit different symptoms compared to another child at-risk of LDs (Sardesai, 2015). For example, a child may be good at reading but have poor handwriting, while another child may have problems with reading but have very good handwriting. Yusuf, Jusoh, and Yusuf (2019) opined that children at-risk of LDs often require curriculum and instructional adaptations in order to make progress in the classrooms.

Characteristics of Children At-Risk of Learning Difficulties (LDs)

According to Hayes, Dombrowski, Shefcyk, and Bulat (2018), a family member or a teacher begins the identification process. This is when a family member or a teacher becomes concerned that a child is performing below what is expected of him or her, based on his or her age. The Learning Disabilities Association of America (2017) outlined eight general characteristics of children at-risk of LDs as follows:

1. Difficulty following directions.
2. Difficulty paying attention.
3. Inability to read, write and/or do mathematics.
4. Inability to receive, process, and store information.
5. Poor eye-hand coordination.
6. Inability to distinguish between or among letters, numerals, or sounds.
7. Poor sequencing ability.
8. Poor organisation skills.

Additionally, children at-risk of LDs often struggle in various areas of academic performance (Salihu, Aro, & Rasanen, 2018). Some children have difficulties in one academic area, while others may experience difficulties in multiple areas (Sardesai, 2015). According to Pierangelo and Giuliani (2008), the academic difficulties children at-risk of LDs have generally fall into three areas and these are reading, mathematics, and written expression.

Reading Difficulties: Reading difficulties also known as dyslexia is a multifaceted process that needs various skills to overcome (Nation, 2019). Dyslexia is a specific language-based disorder categorised by difficulties in single word decoding, which is often characterised by inadequate phonological processing skills (Cassidy & Cassidy, 2019). The prevalence of dyslexia among school-going children is estimated between 5% and 17% suggesting the common type of LDs (Shetty & Rai, 2014). According to Ruan, Georgiou, Song, and Shu (2018), this difficulty is related to poor phonological awareness (that is, ones' inability to realise that the flow of speech can be put into smaller units of sounds such as phonemes, syllables, and words. Klingner, Vaughn, and Boardman (2015) outlined seven general characteristics of struggling readers. These are:

1. May not make a connection with the prior text of learning.
2. Lack of motivation and interest.
3. Lack fluent and accurate word reading.
4. Strategy use is inconsistent and may not be purposeful.
5. Lack vocabulary or background knowledge.
6. Lack strategy to repair misunderstanding when it occurs.
7. May not monitor for meanings.

According to Hardman, Smith, and Wall (2005), children at-risk of reading difficulties usually have problems with the components of the reading process including oral reading, word recognition skills, reading comprehension, and poor reading habit.

Oral Reading Difficulties: Many children with oral reading difficulties have problems with reading fluently (Kelso, Whitworth, Parsons, & Leitao, 2020). Reading fluency, which is often defined as the rate of accurate reading (correct words per minute) is a vital indicator of reading ability (Hunt & Marshall, 2005). Usually, children who have difficulties in reading fluently may read audibly but with an inappropriate articulation of spoken language (Friend & Bursuck, 2009). Authors have outlined some characteristics of children with oral reading difficulties (Mercer & Pullon, 2009; Gargiulo, 2004). These are:

1. Omission: This happens when a child omits individual words or groups of words when reading (for example, 'Mike ate food' instead of reading, 'Mike ate the food').
2. Insertion: This happens when the child inserts one or more words into the sentence that is being read (for example, 'The book is on the [white] table' instead of reading, 'The book is on the table').
3. Substitution: This happens when a child changes a word or words in reading a passage with another word or words (for example, 'It is [on] the table' instead of reading, 'It is under the table').
4. Gross mispronunciation of a word: With this, the child pronounces a word which resembles the correct pronunciation of the word (for example, pronouncing the word 'church' as 'curch').

5. Hesitation: With this, the child holds back in doubt or pauses for some seconds before saying a word.
6. Inversion: This also happens when the child changes the order in which words appear in a sentence in a passage (for example, 'The cat [after] runs the mouse, instead of reading, 'The cat runs after the mouse).
7. Disregard of punctuation: The child is unable to notice punctuation when reading (for example, failing to pause for a comma, stop for a period, or a question mark).
8. Slow choppy reading: This is also characterised by not recognising words quickly enough (that is, 20 to 30 words per minute).

Word Recognition Difficulties: The ability to identify or recognise written words greatly depends on one's perception, selective attention, memory, and metacognitive skills (Pierangelo & Giuliani, 2008). Hunt and Marshall (2005), added that word recognition is determined by cognitive skills that seem challenging for children at-risk of LDs. This, therefore, means that to identify written words, different skills are required. Pierangelo and Giuliani outlined three vital word analysis skills as follows:

1. The capacity to relate sounds to the appropriate letters and the combination of letters used to write them.
2. Instantaneously recognising and recalling words (sight-word).
3. Making use of the text surrounding a word to help identify the word.

Reading Comprehension Difficulties: According to Hunt and Marshall (2005), children who have difficulties in understanding text being read have inadequate word-analysis skills. In some cases, a child may read a passage fluently and audibly which teachers may assume that the child is a proficient

reader only to discover that the child has little or no understanding of what he or she has read. It is vital for teachers to not only assess children's ability to decode but also their ability to understand what they have decoded. Pierangelo and Giuliani (2008) identified some dominant reading comprehension difficulties children at-risk of LDs have. These are:

1. Difficulties recalling basic facts. For example, inability to answer specific questions about a passage.
2. Difficulties recalling sequence. For example, inability to tell the sequence of the story that was read.
3. Difficulties recalling the main theme. For example, inability to recall the main topic of the story.

Poor Reading Habit: Children who have reading difficulties usually have poor reading habits (Kauffman, Hallahan, Pullen, & Badar, 2018). It is, therefore, important for teachers to be aware of these behaviours when observing children read on a daily basis in the classroom. Gargiulo (2004) outlined some behaviours children who have poor reading habits exhibit. These are:

1. Tension movements: Examples of this behaviour include frowning, fidgeting, and using a high-pitched tone of voice.
2. Insecurity: Examples of this behaviour include refusing to read, crying, and attempting to distract the teacher.
3. Loses place: For instance, children will lose place frequently.
4. Lateral head movements: Children will often jerk their head.
5. Holds material close: Usually, children will deviate extremely from 15 to 18 inches.

Mathematics Difficulties: According to Watson et al. (2017), mathematics difficulties also known as dyscalculia is a disorder that affects an individual's ability to comprehend and recall concepts in mathematics such as principles, methods, basic computation skills, and sequence of operations. Research show that mathematics difficulties are second to reading difficulties as an academic problem area for children with LDs (Morgan, Farkas, & Wu, 2009; Hallahan & Kauffman, 2005). A study conducted by Kucian and von Aster (2015) found that the prevalence rate of dyscalculia is between 3% and 6%.

Additionally, Hunt and Marshall (2005) opined that children with mathematics difficulties often have problems in mathematical reasoning and mathematics calculations. Hunt and Marshall further noted that before children are given formal education, they are exposed to real circumstances that require them to apply mathematical concepts. Therefore, children apply their previous knowledge in formal education. Mathematical difficulty is often an obstacle in the academic experience of children with LDs and it normally continues as they progress through high school level (Kunwar & Sharma, 2020). According to Pierangelo and Giuliani (2007), the American Academy of Special Education Professionals' Educator's Diagnostic Manual of Disabilities and Disorders identified problems children with mathematical difficulties face. They include the following:

1. Basic number fact difficulty: Children may have problems memorising and retaining many basic arithmetic facts. They seem to forget facts easily and do not have the ability to build effective memory skills by themselves.

2. Mathematical organisation difficulty: Children may be unable to logically organise objects. They may have difficulties understanding mechanical processes. They may be unable to visualise where the numbers on a clock are located.
3. Mathematical sequencing difficulty: Children may have difficulty with sequencing. They may also read numbers on a chart without following its sequence and perform mathematical operations backward.
4. Temporal and monetary mathematics difficulty: Children may have problems in topics relating to time and money. For example, keeping track of time and counting money. They may fear engaging in money transactions.

Allsopp, Kyger, and Lovin (2007), identified six mathematics traits that suggest that a child has mathematics difficulties. These are:

1. Exhibiting competency in some aspects of mathematics but extremely weak in other aspects.
2. Exhibiting inadequate mathematical thinking or problem-solving skills.
3. Taking so long to solve a mathematical problem although he or she can solve it correctly.
4. Struggling to apply knowledge and skills to other mathematical concepts.
5. Inconsistency in exhibiting mathematical abilities.
6. Refusing to do certain mathematical tasks.

Writing Difficulties: Writing difficulties, also called dysgraphia, is the inability to write and make patterns (Nicolson & Fawcett, 2011). Writing is a multifaceted technique of expression including the combination of eye-hand,

linguistic, and conceptual abilities (Watson et al., 2017). Pierangelo and Giuliani (2008), identified three interrelated graphic skills in written language as follows:

1. Composition: It is the capacity to create thoughts and to express them in appropriate grammar, while observing certain formal conventions.
2. Spelling: It is the capacity to make use of letters to construct words that conforms to applicable usage.
3. Handwriting: It is the capacity to physically perform the graphic characters needed to produce readable compositions.

According to Watson et al. (2017), children with handwriting difficulties may exhibit the following characteristics:

1. Poor letter formation (that is, letters that are extremely small, large, or uneven in size).
2. Incorrect use of capital and lowercase letters (that is, letters that are crowded and cramped).
3. Incorrect or inconsistent slant of cursive letters (that is, lack of fluency in writing).
4. Incomplete words or missing words.

Spelling Difficulties: Spelling is defined as the ability to use letters to construct words under accepted usage (Heward, 2003). Hunt and Marshall (2005) posited that many children with spelling difficulties spell a word as if it is the first time being attempted with little or no reference of the image of the word held in memory. Generally, common spelling errors teachers should look out for among children include adding of unwanted letters, reversing vowels, reversing syllables, and the phonemic spelling of non-phonemic words (Heward, 2003).

Lundetrae and Thomson (2018) argued that children who are poor readers do not imply they have learning disorders; instead, there should be a reason for concern when poor spelling skill is consistent with poor reading and/or arithmetic. This suggests that acquiring the skill to spell is a developmental process, where children go through several stages to acquire written language skills. According to Giuliani and Pierangelo (2005), some spelling errors may be exhibited in children with auditory or visual channel deficits. Giuliani and Pierangelo outlined the following auditory or visual channel deficits among children:

1. Auditory discrimination problems: Children with this deficit will substitutes 's' for 'c' and/or confuse the vowels. For instance, a child spells 'bat' as 'bit').
2. Auditory acuity or discrimination problems: With this, the child does not hear subtle differences in, nor discriminate between sounds and often leaves vowels out of two-syllable words.
3. Auditory-visual association: Here, a child may use a synonym such as 'shirt' for 'clothe' when spelling.
4. Auditory-visual associative memory: With this, children wrongly guess words with no connection to the words dictated to them. For example, a child may spell cat for house or write 'tus' for apple.

Oral Language Difficulties: Children with oral language difficulties usually have poor mechanical and social use of language (Hallahan & Kauffman, 2005). This implies that their response rate in verbal communication may be slower than their 'non-disabled' counterparts. According to Gargiulo (2004), poor

mechanical and social use of language is exhibited in three main areas and these are:

1. Syntax: It deals with a system of rules that determine how words are organised into sentences.
2. Semantics: It deals with the meaning of words.
3. Phonology: It deals with the study of how individual sounds make up words.

According to Hallahan and Kauffman (2005), children with oral language difficulties may exhibit the following characteristics:

1. They want additional time to receive, process, and store information.
2. Have difficulties in understanding the meaning of words in oral speech.
3. Difficulty in distinguishing between when to laugh and when not to.
4. Have difficulties in working in a group to complete a task.
5. Difficulty in following directions.
6. Appear too silent in conversations.
7. Difficulty in appropriately responding to people's statements.
8. Difficulty in skilfully responding to questions.

Many children with oral language problems are not good at initiating or joining a conversation (Gargiulo, 2004). Simply, children with oral language problems find it particularly worrying to engage in conversations with friends because they cannot maintain the mutual give and take that conversation between two people requires.

Informal Assessment Techniques for Identifying Children At-Risk of Learning Difficulties (LDs)

The term 'informal' connotes flexibility that allows assessment to be done without any strict rules or standardised procedures (Classen, Cheatham, & Kang, 2020). In the regular education classroom, informal assessment techniques are mainly used by teachers in identifying children at-risk of LDs (Kelso, Whitworth, Parsons, & Leitao, 2020). They include the following:

Rating Scale: With rating scale, teachers do not record the 'presence' or 'absence' of a behaviour or skill instead; they subjectively rate each item according to some dimension of interest (Kuiken & Vedder, 2017). For instance, children's proficiency with a specific skill or task may be rated on a 1 to 5 scale where 1 represents the lowest level of proficiency and 5 represents the highest.

Checklist: A checklist is a type of observational technique because the observer checks only the presence or absence of the behaviour or product (Rowlands, 2007). A checklist can provide information about a child's level of accomplishment within the curriculum. For instance, teachers can make a list of all the tasks a child is expected to perform at the end of an academic year. Teachers then indicate by ticking the tasks that the child can perform.

Observation: Observation is the process of systematically recording social and academic behaviours to make instructional decisions. Observation typically forms the starting point for assessment, and it is important throughout assessment process (Broadhead, 2006). In observation, the teacher collects data on the child by watching him or her in the classroom, playground, or any other natural or clinical setting. Teachers should record the antecedent, topography, intensity, frequency, and duration of the behaviour (Hobart & Frankel, 2004).

Alberto and Troutman (2006) outlined the following behaviour recording systems:

1. Event recording: It simply records the number of times that a specified behaviour happens over a given period.
2. Duration recording: It measures how long behaviour lasts.
3. Latency recording: It deals with how long it takes a child to engage in behaviour.
4. Interval recording: It deals with the frequency and duration of a particular behaviour with respect to certain time intervals.

Work Sample Analysis: In this type of assessment, the teacher collects a sample of a child's work (permanent product) then examines to determine the areas of successful performance and areas where the child may need help (Lent, Schmidt, & Schmidt, 2006). For example, the child's writing exercises, and artwork are assembled and examined to determine the specific difficulties children have in learning.

Portfolio Assessment: A portfolio assessment is a systematic collection of works a child has done over a period of time (Nezakatgoo, 2011). Teachers may collect samples of children's writing exercises, craft, essay, project, and artwork. Portfolios are useful in documenting growth, effort, and achievement (Davis & Ponnamperuma, 2005). Despite their usefulness, portfolios can be time-consuming and difficult to assess higher-level skills (Birgin & Adnan, 2007).

Teacher-Made Achievement Tests: Achievement tests measure the degree of a child's learning in specific curricula areas in which instruction has been received (Gareis & Grant, 2015). The teacher-made tests typically cover several

curriculum areas, such as reading, vocabulary, language, mathematics, science, social studies. Examples of teacher-made tests are essay-type tests, multiple-choice types, supply type, and true or false types.

Criterion-Referenced Tests (CRT): Teachers can design tests to measure children's performance against a certain standard. Here, CRT compares a child's performance with a criterion of master for a specific task with no emphasis on his or her performance compared in a group (Chen, Chen, & Kim, 2015). The purpose of CRTs is to obtain information on specific skills in the curriculum and provide information on children's mastery of content and ways to improve children's academic performance through curriculum and instructional adaptation (Burton, 2006).

Curriculum-Based Assessment (CBA): CBA focuses on activities and tasks the school is responsible for. The CBA uses the actual curriculum as the standard and therefore provides a basis for evaluating and modifying the curriculum as the standard for an individual child (Parker, Burns, McMaster, & Shapiro, 2012). This type of assessment can serve many purposes such as identification, eligibility, instructional grouping, and programme evaluation (Hargis, 2013). CBA can assist in gathering information on children's academic behaviour within the context of the curriculum being used.

Ecological Assessment: Ecological assessment focuses on the child's interaction with the environment rather than the deficits of the child (Anders et al., 2012). These are peers, parents, mass media, community, teachers among others that have some influence on the child's learning. The term ecological therefore means the environment that the child lives in and factors outside the

school environment that influence the child's educational growth and development.

Performance Assessment: This type of assessment allows children to exhibit what they are capable of doing where teachers observe and rate their performance. Performance assessment is useful in early childhood and special education especially in subject areas such as music and art because pre-schoolers and KG children are limited in their communication skills (Duman, 2017). By observing children's performance, information about them can be obtained.

Remediation Techniques for Children At-Risk of Learning Difficulties (LDs)

There are various remediation techniques and approaches teachers can employ at the pre-referral stage of assessment process to improve the academic performance of children at-risk of LDs in the classroom. Examples include task analysis, cooperative learning, peer tutoring, co-teaching, and differentiated instruction. However, the efficacy of these remediation techniques and approaches largely depends on how well teachers employ them to commensurate the unique needs of children at-risk of LDs (Kauffman, Hallahan, Pullen, & Badar, 2018).

Task Analysis: Task analysis is the process of breaking a task down into smaller instructional units or components to facilitate the understanding of a skill being taught by a teacher to a learner (Szidon & Franzone, 2009). Task analysis is proven to be successful in teaching reading and writing (Baker, Rivera, Devine, & Mason, 2019) and many other skills (Snodgrass, Meadan, Ostrosky, & Cheung, 2017). This is because task analysis provides children with simple units

of instructional steps that take into account their level of cognitive capacity and learning style in order to reduce children's frustration in learning (Alberto & Troutman, 2006). However, a child with mild or moderate LDs will need fewer steps in a task analysis than a child with severe or profound LDs (Browder, Trela, & Jimenez, 2007).

Prior to developing a task analysis, teachers should make materials that will be required to perform the task available and determine how the task will be broken down into smaller units of instruction (Browder & Spooner, 2011). This method is called chaining. Chaining is an operant conditioning principle by which an individual's responses within a behavioural sequence are reinforced to produce complex behaviour (Baker, Rivera, Devine, & Mason, 2019). The common types of chaining teachers can use are forward chaining and backward chaining. Alberto and Troutman (2006) described forward chaining as using the first step to teach a skill followed by teaching each subsequent successive step one after the other until the child has mastered the skill while backward chaining involves using the last step to teach a skill and then teaching the preceding steps one after the other until the child master the skill.

Peer Tutoring: Studies have shown that peer tutoring has a positive impact on the process of learning (Haider, & Yasmin, 2015; Ali, Anwer, & Jaffar, 2015). Peer tutoring is an instructional technique where children are taught by their peers on a one-on-one basis by providing direct instruction and modelling to encourage and monitor performance (Alrajhi & Aldhafri, 2015). Children who receive instruction from peers are called tutees while children who give instructions or assist other children on tasks are called tutors. Peer tutoring has often been used for more challenging tasks in reading, writing, mathematics,

and problem-solving and thinking skills (Topping, 2005). Karcher (2008) identified two ways peer tutoring can be done. These are: cross-age tutoring arrangement and reciprocal teaching arrangement. In cross-age tutoring arrangement, an older child acts as a tutor for a younger child while in reciprocal teaching arrangements, children alternate between tutor and tutee roles (Miller, Topping, & Thurston, 2010). Briggs (2013) suggested ten tips to enhance peer tutoring. These are:

1. Train the tutors on the skill they are going to teach.
2. Use a system of reward that appeals to the tutee.
3. Stress on confidentiality, positive feedback, and adequate time for responding to tasks.
4. Choose the skill, or behaviour to be learned and the appropriate ways it is going to be taught.
5. Employ effective group strategies and skills for peer tutoring.
6. Make use of modelling and role-playing of behaviour or skill being taught.
7. Encourage active and participatory learning.
8. Add assistance or support until mastery.
9. Clearly explain directive and nondirective tutoring.
10. Describe effective ways on how feedback is provided.

Co-Teaching: Studies have shown that children at-risk of LDs find lessons interesting, impactful when co-teaching is employed compared to traditional methods (Gokbulut, Akcamete, & Guneyli, 2020; Lochner, Murawski, & Daley, 2019). Co-teaching is described as the collaboration of two professionals, often a general education teacher and a special education teacher who deliver

instruction to children in a single physical space (Kauffman, Hallahan, Pullen, & Badar, 2018). Friend and Bursuck (2009) proposed six approaches of co-teaching as follows:

1. One teaches and one observes: In this co-teaching approach, one teacher leads a large-group instruction while the other teacher collects educational or behavioural information on a particular child or the group.
2. Station teaching: In this approach, instruction is divided into three non-sequential parts, and children are divided into three groups and rotate from station to station while being taught by the teachers at two stations and working independently at the third.
3. Parallel teaching: In this co-teaching approach, the class is divided into two groups and each group is simultaneously given the same instruction by any of the co-teachers.
4. Alternative teaching: With this approach, one teacher works with the large group of the children while the other works with a small group for remediation, enrichment, pre-teaching, or a different purpose.
5. Team teaching: Both teachers lead large-group instruction by both giving instructions and presenting opposing views in a debate among others.
6. One teaching and one assisting: With this approach of co-teaching, a teacher will lead an instruction while the other moves around among and gives assistance to individual children.

Differentiated Instruction: Differentiation is a process by which the differences between learners' abilities and inabilities are accommodated by a

teacher so that all learners will have equal learning opportunities (Tomlinson, 2017). In teaching reading, writing, and mathematics, where there is enough evidence to suggest that a child has persistent difficulties, differentiated instruction makes it possible to accommodate the child's background, readiness level, language, interest, and learning profile (Watts-Taffe et al., 2012). This gives the child the opportunity to learn at his or her own pace and ability among his or her 'non-disabled' counterparts. Research shows that children's level of improvement and test scores, when provided with differentiated activities, were high compared to when provided with traditional instruction (Yavuz, 2020). However, Watts-Taffe et al. argued that differentiation becomes more effective when teachers are motivated, and when headteachers provide the enabling environment to support its implementation in the classroom. Tomlinson (2017) suggested four ways to differentiate instruction. These are:

1. Content:
    a. Making use of materials for reading at different level of readability.
    b. Putting materials that are in text on tape for a visually impaired child.
    c. Using a list of words or vocabulary that meets children's level of readiness.
    d. Adopting different means of presenting ideas to children such as through visual and auditory.
2. Process:
    a. Adopting tiered activities where all children can work with their individual level of skills and proceed with different levels of support and challenge when needed.

b. Providing interest centres that encourage children to explore subsets of the class topic of particular interest to them.

c. Offering manipulatives or hands-on activities to support children who, given their condition, need them.

d. Varying the duration of time a child should take to finish a task and give extra support for him or her.

3. Product:

a. Give children alternatives to demonstrate what they have learnt through oral expression.

b. Adopt rubrics that commensurate children's different level of skills.

c. Allowing children who are not capable of working alone to work in groups on a task and those can work alone to do so.

d. Motivating children to build their own product based on their abilities.

4. Learning environment:

a. Ensuring there are spaces in the classroom children can work quietly without distraction from other children.

b. Making available materials that takes into consideration a variety of cultures and home settings of the children.

c. Set out clear procedures to facilitate independent work based on children's needs.

d. Set flexible classroom layout, and furniture arrangements to support individual work, group work, and children who are physically and visually disabled respectively.

Cihak and Smith (2018), outlined other ways to enhance learning among children at-risk of LDs. These are:

1. Guided Practice: With guided practice, each step of instructional activity or skill is clearly explained and modelled to provide children with the support they need to be able to learn the skill or behaviour being taught.
2. Modelling: With modelling, the teacher demonstrates the behaviour or skill in a sequence, where the child watches the teacher and imitates the behaviour or skill being taught. Simply, the teacher demonstrates the correct sequence of behaviours required for successful completion of the desired skill or behaviour.
3. Prompting: Prompting describes using correct responses in the presence of a particular discriminative stimulus so that reinforcement can occur. Prompts should be faded or reduced to less intrusive or more naturally occurring stimuli as the child's learning improves over time.
4. Verbal prompts: It is the use of a specific spoken statement that tells children what to do and how to do it, rather than simply directing the child to do something. When verbal prompts are given, it must be clear so that the child will be able to respond correctly to the prompt.
5. Physical prompts: This is when the teacher makes physical contact to guide the child when learning a behaviour or skill. With a physical prompt, the teacher assists a child in learning a task by making a full physical or partial physical prompt (for example, holding or touching the child's arm, elbow, or wrist).
6. Visual prompts: These are materials that appeal to the sight of the learner. It includes pictures, coloured or bold writing of specific words

or symbols, or videos used to prompt a child when learning a specific behaviour, academic or social skill.

7. Gestures: This is a form of non-verbal communication in which teachers use visible bodily actions to communicate particular messages to a child. Teachers can move some part of their body (for example, pointing to a picture, and nodding their head).

Empirical Review

This section presents empirical studies that are relevant to the current study. The empirical review is presented based on the five research questions that guided the study. This would help put the problem in a proper perspective for investigation.

Teachers' Understanding of Assessment

Asare (2015), employed an explanatory sequential research design to explore kindergarten teachers' assessment practices in Ghana. It was found in the study that teachers understand assessment as giving class exercises to children just to meet the expectations of the parents and educational leaders to the neglect of meeting the curriculum assessment prescription. Also, it was revealed that teachers' assessment practices are not supported by any known developmental assessment theory for children. Similarly, another study in Ghana conducted by Frimpong and Osei (2021) adopted an explanatory sequential research design to investigate early childhood teachers' knowledge of assessment. The study reported that although teachers had some level of understanding of assessment, they frequently used portfolio and class exercise to assess children in the classroom. However, the study found that teachers had limited knowledge in the use of multiple assessment tools although they gained

some experience as they use portfolios and class exercises. The findings of Asare (2015) and Frimpong and Osei (2021) suggest that teachers do not have a detailed understanding of assessment. However, both studies seem to lack comprehensiveness. This is because priority was given to the quantitative phase with little emphasis on the qualitative phase.

Additionally, an explanatory sequential research design was adopted by Acar-Erdol and Yildizli (2018) to examine teachers' classroom assessment practices in Turkey. It was found in the study that teachers mainly use traditional assessment methods in their classrooms in identifying children at-risk of LDs in academic areas such as reading, writing, and mathematics. Again, the study revealed that although teachers identified the main factor influencing classroom assessment practices as student characteristics, they did not reflect these characteristics in their assessment practices. Examples of these characteristics are: children's age and abilities, interests, and learning style. However, the criteria of one year teaching experience used by the researchers to select the participants for the study might have reduced the depth of the data. This is because teachers with one year teaching experience might not have gained adequate experience in the field of teaching in order to provide reliable and comprehensive information regarding the problem under investigation. It is on this basis that the current study used a criterion of five years teaching experience to select 16 participants for the study.

Furthermore, a quantitative approach employed by Lysaght and O'Leary (2013), to investigate teachers' use of assessment information in primary schools in Ireland. It was revealed in the study that teachers used assessment information for sharing learning goals, as a criteria for acceptable performance,

for classroom discussion, to obtain and give feedback, and peer and self-assessment. Additionally, a study in Indonesia conducted by Azis (2015), who adopted an explanatory sequential research design reported that teachers used assessment information to improve their classroom teaching. Consistent with this, a qualitative approach adopted by Abrams, Varier, and Jackson (2016) in a mid-Atlantic Metropolitan area in the United States also found that teachers used daily assessment information to shape instruction and to monitor students' progress and improve performance. Although the findings of the studies appear consistent, there seems to be little recognition for the qualitative aspect which primarily collects rich data with the use of research instruments such as interviews, observations, and documents.

Teachers' Understanding of Learning Difficulties (LDs)

A study conducted by Shari and Vranda (2015) in India employed a quantitative approach to examine primary school teachers' knowledge of LDs and found that only 5% of primary school teachers have adequate knowledge about LDs. Similarly, a quantitative study conducted by Shukla and Agrawal (2015) in India reported that teachers have a low level of knowledge about LDs. However, a study in Nepal conducted by Ghimire (2017), who used a quantitative approach to explore primary school teachers' knowledge about children with LDs revealed that 52.67% of teachers have moderately adequate knowledge about LDs and 47.33% have inadequate knowledge about LDs. Similarly, a study in Ghana conducted by Nutsugah (2019), who adopted a mixed method approach reported that teachers have some knowledge about LDs. Although the majority of the studies adopted a quantitative approach, their findings appear inconsistent. This could be because the studies were conducted

in different geographical settings with different values, systems of education, culture, traditions, and customs. It was, therefore, imperative to conduct the study in Ghana with a qualitative approach to find out whether there will be any difference or similarity in the findings reported in other countries.

Similarly, in Pune city, a non-experimental descriptive research design employed by Daniel et al. (2019) to investigate primary school teachers' level of knowledge regarding LDs revealed that 57.33% of teachers have average knowledge and 41.33% have low knowledge of LDs. However, a recent research work conducted by Kunwar and Sharma (2020), in Nepal adopted a quantitative approach with a descriptive survey research design to explore basic school teachers' knowledge about dyscalculia and reported that teachers have inadequate knowledge about dyscalculia. Similarly, a descriptive survey was employed by Bataineh, Dababneh, and Baniabdelrahman (2010) to explore teachers' core competency in teaching children with LDs in Jordan and found that teachers have limited knowledge about LDs and its characteristics. Contrary to this, in Malaysia, Rosli and Aliaz (2020), highlighted in a quantitative study that teachers are highly knowledgeable of the characteristics of children with LDs. The majority of the findings reported appear contradictory and seem to over rely on the quantitative approach where research data is interpreted in quantifiable terms.

Furthermore, a significant number of studies have been conducted on the prevalence of LDs among boys and girls. Vlachos et al. (2013), employed a quantitative approach to investigate the prevalence and gender ratio of dyslexia in Greek. It was reported in the study that there is a significant difference in the prevalence of dyslexia between gender (that is, 7.6% males and 3.8% females).

This implies that the identification of dyslexia is twice among boys than girls. Similarly, a quantitative study in Florida conducted by Quinn and Wagner (2015) revealed that 1 out of 4 boys and 1 out of 7 girls are identified as having reading difficulties. Lastly, the findings of a cross-sectional descriptive survey conducted by Rao et al. (2017) in India found that the prevalence of dyslexia was 13.67% (19% males and 8.5% females).

However, a quantitative study conducted by Wheldall and Limbrick (2010) in New South Wales reported that the difference in the incidence of LDs among boys and girls is more modest than previous studies have suggested. Similarly, a quantitative study in Australia conducted by Limbrick, Wheldall, and Madelaine (2011) revealed that although different explanations on reasons why more boys have reading difficulties than girls have been given, no particular justification exclusively explains gender differences in reading ability. Therefore, the findings suggest that reading success cannot consistently be predicted with gender. Consistent with this, Moll, Kunze, Neuhoff, Bruder, and Schulte-Korne (2014) also conducted a study in Germany with a quantitative approach and found no gender differences in isolated reading, spelling, and arithmetic difficulties. It was also found that more girls than boys showed difficulties in arithmetic, while more boys than girls showed difficulties in spelling.

The SAP (2011) conducted a survey to investigate LDs among basic school children in Greater Accra, Ghana, and found dyslexia as the common type of LDs in school, followed by dyscalculia, dyspraxia, autism, dysphasia, and attention disorder. Additionally, a cross-sectional survey employed by Padhy et al. (2016) in India reported that the most common ways students

exhibit their difficulty were: missing out on words or sentences while reading, misplacing letters or words while reading or writing, and making a frequent mistake in spelling while writing or reading. Additionally, a study in India conducted by Rao et al. (2017), with a cross-sectional survey revealed that 77.8% of children had difficulties in mathematics, 61.7% had difficulties copying from the board, 59.6% had illegible handwriting, 56.3% had difficulties in following instruction, and 54.8% had spelling difficulties. Contrary to this, Clemens, Simmons, Simmons, Wang, and Kwok (2017), employed a quantitative approach to examine the prevalence of reading fluency and vocabulary difficulties among children in the United States and reported that more than 96% of students demonstrate deficits in at least reading fluency or vocabulary. Although the studies contributed to knowledge, there seem to be contradictions in findings and limited studies with qualitative approach.

Roles of Teachers in Assessment Process

In Finland, Virinkoski, Lerkkanen, Holopainen, Eklund, and Aro (2018) employed a longitudinal research design to explore teachers' ability to identify children at-risk of reading difficulties in grade one. It was reported that there are deficiencies in teachers' ability to develop and use specific assessment tools to identify children at-risk of reading difficulties. Similarly, a survey conducted by Yunus and Mohamed (2019) in Malaysia found that the majority of teachers do not have knowledge or acquired minimal knowledge in identifying children at-risk of LDs. Additionally, in Ghana, Nutsugah (2019) employed an explanatory sequential research design to examine how teachers identify children at-risk of LDs. The results of the study showed that teachers mainly identified children at-risk of LDs based on observation. However, a study in

Thailand conducted by Pree-iam et al. (2021) with a participatory action research reported that teachers lack knowledge and understanding about special services such as screening skills so they are unable to classify and scale children's difficulties in learning.

A quantitative study in South Africa conducted by Arends, Winnaar, and Mosimege (2017) reported that as part of teachers' remediation efforts, they use classroom discussion, feedback, problem-solving, and collaboration to enhance the performance of students. It was reported in the same study that teachers observing each other's lessons positively affects learners' performance. Also, Nutsugah (2019) adopted an explanatory research design to explore teachers' remediation techniques. It was reported in the study that teachers use differentiated instruction as a remediation technique to improve children's academic performance. Furthermore, a non-experimental study conducted by Campana (2021), in the United States discovered that the use of storytimes by teachers provides a rich, multimodal information environment where information is shared with young children, encourages positive interaction, and sustains the teaching and learning classrooms.

Mahmood (2013), reported in a qualitative study conducted in New Zealand that teachers make efforts to collaborate with parents by establishing contact with them, communicating with them, building a relationship with them, and making requests and giving them advice that is aimed at improving the performance of children. Similarly, a study in Ireland conducted by Mulholland and O'Connor (2016), who adopted an explanatory sequential research design revealed that teachers were increasingly aware of the significance of collaborating with parents by making a continuous effort to reach out to parents

regarding their children's optimal educational growth and development. Aouado and Bento (2019), employed a qualitative approach with a narrative research design to investigate the collaboration between parents and teachers in special education in Lebanon. They reported that teachers were interested and concerned about students' learning so they reached out to parents of the students to discuss problems such as students who were not capable of expressing themselves orally.

A survey research design adopted by Bramlett, Murphy, Johnson, Wallingsford, and Hall (2002), to investigate the common reasons for referral in Arkansas reported reading problems as the frequent reason for referral (57%) followed by written expression (43%), task completion (39%), mathematics difficulties (27%), listening comprehension (14%), and oral expression (11%). Contrary to this, Briesch, Ferguson, Volpe, and Briesch (2013) employed a descriptive survey to examine teachers' referral concerns in Massachusetts and revealed that defiance, followed by learning problems, inappropriate physical behaviour, aggression, and social problems were the most common reason for referral. Additionally, a descriptive survey research design was adopted by Heine, Slone, and Wilson (2016), in Australia to investigate the referrers and reasons children were referred. It was reported in the study that the frequent problems that lead to referral were: literacy, speech, language, and academic underperformance, followed by hearing, and processing difficulties and emotional behavioural issues. It was found in the same study that school staff were the most common referrers, followed by medical health professionals, and family members.

In South America, Klingner and Harry (2006) employed an ethnographic research design to investigate referral concerns among teachers. It was reported that brief concern was given to pre-referral approaches hence, most children were pushed toward testing, based on the assumption that low academic performance or behavioural difficulties were perceived as problems within the child. Contrary to this, a descriptive qualitative study in Queensland conducted by Hinchliffe and Campbell (2016), on teachers' reasons for referring children revealed that teachers' common reasons for referring children for further assessment were: poor response to strategies and need for information from parents. Lastly, a descriptive survey research study in Jordan conducted by Bataineh, Dababneh, and Baniabdelrahman (2010), reported that teachers have inadequate competency in providing remediation efforts to improve children's performance academically.

Challenges of Teachers in Assessment Process

A qualitative study in the mid-Atlantic Metropolitan area conducted by Abrams, Varier, and Jackson (2016), reported that the challenges teachers face in making remediation effort were: misalignment of periodic assessments with instructional content, highly loaded curriculum content, high cognitive demand expected in the newer state curriculum and the lack of infrastructure to support the use of assessment information. Additionally, Ghavifekr, Kunjappan, Ramasamy, and Anthony (2016) employed a cross-sectional survey research design in Malaysia to investigate the challenges teachers face in using Information Communication Technology (ICT) tools to improve children's academic performance. It was found that the challenges teachers face were limited network accessibility and connection. Similarly, a qualitative study

conducted by Yadav, Gretter, Hambrusch, and Sands (2016) in the United States to explore teachers' challenges in the use of ICT to enhance children's learning revealed that limited resources affect the effective use of ICT by teachers in teaching. Consistent with this, Sharma and Chaudhary (2020), who conducted a correlational research study in India also found that student-teacher ratio, and inadequate teaching resources are problems hampering the effective use of ICT to enhance students' learning outcomes.

Additionally, Obeng (2012), adopted a convergent mixed method research design to examine the experience of teachers who teach 4-8 year old children with special needs in school classrooms in Ghana and reported that among the challenges teachers face were: lack of appropriate resources for instruction. It was highlighted in the same study that getting parents to participate in the education of their children was problematic. Additionally, a quantitative study on the availability of special education teachers conducted by Katsiyannis, Zhang, and Conroy (2003), in Columbia revealed that there is a nationwide shortage of teachers who are qualified to teach across all disabilities particularly in the area of emotional and behavioural disorders which is often associated with LDs. Similarly, a survey conducted by Carver-Thomas and Darling-Hammond (2017), in California reported that the unavailability of special education teachers negatively affects the academic achievement of children.

Furthermore, Azis (2015), employed an explanatory sequential research design in Indonesia to examine how teachers' assessment practices are affected and revealed that teachers felt that the state-wide examination policy requirements constrained their efforts. Also, Baeck (2010), adopted a survey

research design to investigate parents' involvement in home-school cooperation in Norway and revealed that parents with high education are more active in their child's education than parents with less education. Similarly, a study conducted by Ghanney (2018), employed a case study research design in Effutu Municipality in Ghana reported that most parents were aware of the benefits of education but the reality of their lives including education and literacy deficiency affected their involvement in their children's education. Consistent with this, a study conducted by Echaune, Ndiku, and Sang (2015) in Kenya adopted a convergent mixed method approach and found that parents provided inadequate assistance to children in doing their homework.

A phenomenological research study conducted by Mahmood (2013), in New Zealand on early childhood teachers' challenges in working with parents reported that parents lack reciprocity, parents are difficult to build a relationship with, parents feel they are always right, and parents are not responsive and are not willing to actively participate in their children's education. Furthermore, In Ireland, Mulholland, and O'Connor (2016), adopted an explanatory research design to examine teachers' collaborative classroom practices and found that while teachers are aware of the significance of collaborating with resource teachers, time constraints, and limited professional development continue to be a challenge. Additionally, Aouad and Bento (2019), conducted a study in Lebanon with a narrative research design to explore parent-teacher collaboration in special education. It was revealed in the study that teachers had difficulties in initiating communication and relationships with parents. These findings corroborate with the findings of Mahmood (2013) that teachers face many challenges in collaborating with parents.

Teachers' Suggestions on Improving Assessment of Children At-Risk of Learning Difficulties (LDs)

In Ghana, Obeng (2012), conducted a study with a convergent mixed method research design to examine the experience of teachers who teach 4-8 year old children with SEN in the classrooms. It was reported in the study that Parent-Teacher Associations (PTA) should find innovative ways to advocate for the active involvement of parents in the education of children. It was also reported in the study that special education teachers should be appointed to assist the regular education teachers with supportive services towards the educational growth and development of children with SEN.

Additionally, a research survey conducted by Sheng and Basaruddin (2014), in Malaysia to examine the ways of improving students' performance in assessments from instructors' and students' perspectives revealed that instructional factors such as student-teacher ratio and conditions of facilities for teaching and learning should be adequate in order to promote effective teaching and learning among students in the school. Again, it was reported in the study that environmental factors such as parental involvement in the education of their children should be effective in order to improve students' academic performance.

Furthermore, it was recommended in a study conducted in Ghana by Nutsugah (2019) who explored the experience, psychological, distress, and coping among teachers who handle students with LDs that schools should be provided with adequate resources. It was further recommended in the study that the directorates of education should deploy specialists such as clinical psychologists to schools to screen and provide interventions for teachers who

have mental health challenges such as frustration and stress due to the problems they encounter in teaching students with LDs.

Summary

It can be seen from the empirical studies that there are inconsistencies in the findings reported on teachers' understanding of LDs. While some studies reported that teachers have inadequate understanding of LDs, others reported that teachers have moderately adequate, adequate, and highly adequate understanding of LDs. Additionally, it is not clear the ratio of boys to girls regarding the prevalence of LDs. While studies reported that there are more boys than girls with LDs, other studies found no gender differences in isolated LDs and the gender ratio of LDs is more modest than previous studies have suggested. Furthermore, findings on the common reasons for referral appear contradictory. The contradictions are: defiance, aggression, literacy, speech among others. Although the findings of the studies on teachers' understanding of assessment seem consistent, they heavily relied on a mixed method approach specifically, explanatory sequential research design with few on a qualitative approach. The majority of the empirical studies appear to be in line with a mixed method approach and/or quantitative approach. Therefore, due to the contradictions in findings and the over reliance on mixed method approach and quantitative approach, it is imperative to employ a qualitative approach to provide additional insight into the phenomenon under investigation.

CHAPTER THREE

RESEARCH METHODS

Introduction

This chapter presents the research methods for the study. They are presented under these sub-headings: research design, study area, population of the study, sample and sampling procedures, data collection instrument, pilot-testing of research instrument, criteria to determine trustworthiness, data collection procedures, ethical considerations, data processing and analysis.

Research Design

According to Creswell (2015), a research design is a plan that is intended to provide a suitable framework for a study. A qualitative approach with a phenomenological research design was employed for the study. The justification for using this approach and design is because the study sought to describe the commonality in the lived experiences of teachers about assessment process for children at-risk of LDs. This is in consonance with Creswell and Poth (2016), who posited that phenomenological research design as a type of qualitative study is appropriate for investigating the lived experiences of individuals. Another reason for using this research design is its flexibility (Bevan, 2014). That is, it gave me the opportunity to probe further during the interviews in order to explore the full experience of teachers in assessment process for children at-risk of LDs.

A phenomenological research design is a design of inquiry that emanates from psychology and philosophy where researchers describe the lived experiences of individuals about a phenomenon (Creswell & Creswell, 2018). Using phenomenological research design is basically to closely investigate a

phenomenon to explore the world of lived experiences from the views of individuals who have lived it (Qutoshi, 2018). Qutoshi further opined that phenomenological research design does not only help researchers to understand a phenomenon better, but it also helps them to explore their nature, bring a transformation at a personal level, critically reflect, and become more thoughtful in understanding a phenomenon.

Study Area

The study focused on basic schools in Cape Coast Metropolis, Ghana. Cape Coast Metropolis was selected as the study area because it is noted for setting the pace in the earliest educational establishment on the Gold Coast (Pinto, 2019). Another reason why the current study focused on Cape Coast is that it was among the districts selected for the first pilot project of inclusive education in Ghana in 2003. Cape Coast Metropolis consists of six circuits, namely, Aboom, Bakaano, Cape Coast, Efutu, Pedu/Abura, and Ola with a total of 78 public basic schools (Ghana Statistical Service [GSS], 2018). According to GSS (2014), Cape Coast Metropolis is bounded on the south by the Gulf of Guinea with a population of 169,894 with 82,810 males and 87,084 females.

Population

Murphy (2016) defined population as the entire group of individuals or subjects who have common characteristics from which a representative sample is taken to represent the entire group. The population for the study was 32 participants comprising 10 males and 22 females. The 32 participants comprised kindergarten (KG) and lower primary teachers from four basic schools that collaborate with the Centre for Child Development Research and Referral (CCDRR) of the University of Cape Coast (UCC).

Sample and Sampling Procedure

According to Majid (2018), sampling is the process of selecting a representative sample of individuals or subjects from a population of interest. Four basic schools were purposively selected for the study because the CCDRR of UCC collaborates with them to provide educational intervention programmes for children at-risk of LDs. This suggests that there are children at-risk of LDs in the selected schools. Additionally, in consonance with Robinson (2014), purposive sampling technique was used because the study focused on collecting comprehensive data from schools that have children at-risk of LDs. Also, criterion sampling was used to sample 16 teachers from the 32 teachers (that is, four teachers from each of the four basic schools selected). This comprised 8 females and 8 males who have a minimum of five years teaching experience at KG and/or lower primary. With a minimum of five years teaching experience, teachers would have interacted with a significant number of children at-risk of LDs hence, they can give reliable information regarding the research questions. The selected sample size was based on the recommendation given by Ellis (2016) that 6-20 individuals are sufficient when using phenomenological research design.

Data Collection Instrument

A semi-structured interview guide was used to collect data for the study. The semi-structured interview guide was used because it yielded in-depth information and allowed the interviewees to express themselves from their own experiences. This is consistent with Creswell (2015), who posited that interviews allow interviewees to elaborate their feelings, thoughts, and experiences about a phenomenon under investigation. Another reason for using

a semi-structured interview guide was because of its flexibility (Adhabi & Anozie, 2017). That is, it allowed me to probe further by modifying the order of the questions, style, and pace of questions, and adjusting the level of language based on interviewees' responses to elicit the fullest responses from the 16 teachers who were interviewed.

The semi-structured interview guide for the study had six sections (that is, section 'A' to section 'F') (See Appendix D). Section 'A' collected demographic data. It had six questions that elicited information on teachers' gender, teachers' educational qualification, teachers' years of teaching experience, class level teachers teach, the age range of children, and class size. Section 'B' elicited information on teachers' understanding of assessment. This section had four questions. Section 'C' elicited information on teachers' understanding of LDs and it had five questions. Section 'D' elicited information on roles of teachers in assessment process. This section had eight questions. Section 'E' elicited information on the challenges of teachers in assessment process and it had four questions. The last section 'F' elicited information on teachers' suggestions on improving assessment of children at-risk of LDs. This section had four questions. In all, the instrument had a total number of 31 questions.

Pilot-Testing of Research Instrument

The semi-structured interview guide was pilot-tested at Etsiapa Memorial Methodist Primary in Komenda/Edina/Eguafo/Abrirem Municipality in the Central Region of Ghana to shape and refine methodological and practical issues (Wray, Archibong, & Walton, 2017). Etsiapa Memorial Methodist KG and lower primary teachers were involved because they shared similar

characteristics to the population of the study. The characteristics are: they are located in the coastal area of Ghana and their dominant economic activity is fishing. Three teachers were involved in the pilot-test and this was based on the recommendation given by McGrath (2013) that 20% of a projected sample size is sufficient when pilot-testing a research instrument. I used one day to pilot-test the research instrument (that is, 10th March, 2021). The pilot-test of the research instrument helped to polish my interview skills and gave an estimation of the duration of the main interview. Additionally, it helped me to polish the questions on the interview guide. For example, the phrase 'remediation effort' in the item, 'what remediation effort do you make' was changed to read, 'what do you do in the classroom to improve children's performance in reading, writing, and mathematics'. The word 'refer' in the item, 'how do you refer children to medical professionals' was changed to read, 'how do you seek the assistance of medical professionals to find out the extent of children's difficulties'. Essentially, words, phrases, and statements that appeared complex to participants and typographical errors were changed and corrected accordingly.

Criteria to Determine Trustworthiness

Trustworthiness in qualitative research is the degree of confidence in data, findings, and the general research process that ensure the quality of a study (Connelly, 2016). According to Kyngas, Kaariainen, and Elo (2020), credibility, dependability, confirmability, authenticity, and transferability are five relevant criteria for determining the trustworthiness of qualitative research. Given this, I determined the trustworthiness of the study based on the five criteria mentioned.

Confirmability: According to Stenfors, Kajamaa, and Bennett (2020), confirmability is the guarantee that the findings of the study are supported by the data collected with consistency and coherence between the real responses given by the participants and the researcher's interpretation. In view of this, to ensure confirmability, I played the tape-recordings of interviews to the interviewees for them to confirm their submissions, make corrections, and clarifications to reach an agreement that the information on the tape-recordings is theirs.

Credibility: Shufutinsky (2020) described credibility as when a researcher makes productive time to engage with participants, establishes rapport and trust with them, and avoids preconceived ideas about them. To ensure prolonged engagement, interviewees were given adequate time to respond to the questions and subsequent dialogues were made after the interviews (Lemon & Hayes, 2020). Lastly, I gave my details such as full name, educational qualification, place of residence, and phone numbers to the participants so that they can have confidence and trust in me.

Transferability: Transferability refers to the extent to which the research findings can be transferred to or is applicable in a different setting (Nowell, Norris, White, & Moules, 2017). I ensured the transferability of the findings through member checking. With this, the transcribed data were shared with participants of the study to confirm that the transcribed data reflect what they said in the interview. The purpose of this exercise was to increase the possibility that potential users of these findings can situate the findings of the study in different settings.

Dependability: According to Kyngas, Kaariainen, and Elo (2020), dependability refers to the consistency of qualitative data over some time in varying conditions. In view of this, I used the inquiry audit approach proposed by Pilot and Beck (2017) to ascertain the dependability of the findings. With this, the findings of the study were shared with an expert in the field of the study (that is, my supervisor) to read through to assess the applicability of the data, interpretations, and conclusions of the study.

Authenticity: Authenticity is when a researcher gives an honest, truthful, and balanced account of the experience and perspective of people's social life (Amin et al., 2020). Simply, authenticity is when a report of findings conveys participants' true and detailed description regarding the phenomenon under study. In view of this, I included enough verbatim responses from different interviewees under each identified theme to reflect the findings of the study (Connelly, 2016).

Data Collection Procedures

Firstly, an introductory letter which was given by the Department of Education and Psychology, UCC was sent to school authorities in the selected schools (See Appendix B). In the letter, participants were informed on how they are expected to participate in the study, the type of information I am soliciting for, and what use the information will be put to. I visited the selected schools to arrange for convenient days, venues, and times for the interviews in order not to disrupt their schedule. Participants were informed of the issues they will be interviewed on. This eased unnecessary tension hence, facilitated a smooth communication in the interviews. I used five days for the data collection (15th March, 2021 to 19th March, 2021). With this, I interviewed four teachers on

Monday, three teachers each day from Tuesday to Friday making a total of 16 teachers.

Ethical Considerations

Ethical consideration is concerned with informed consent, confidentiality, anonymity, and participants having the opportunity to withdraw from the study without any penalty (Rosy, 2019). Ethical issues were considered in this study. First, I sought ethical approval for clearance to conduct the study from the Institutional Review Board [IRB] of UCC (See Appendix A). I assured participants of confidentiality and anonymity. That is, they were assured that their personal information will not be shared with others, and the information given was solely for academic purposes. All the names of the participants and their schools were made anonymous to prevent identification.

Additionally, participants were given a consent form to read through and sign to indicate their agreement to take part in the study (See Appendix C). The participants were assured that their participation is voluntary hence, they had the right to withdraw from the study at any time without any penalty. Before the interviews began, I sought the consent of the interviewees to tape-record the session. I gave the interviewees the right to respond or not respond to questions. This was to ensure that the interviewees do not disclose information they are uncomfortable sharing. I personally sent hard copies and soft copies of the findings of the study to the participants in the selected schools and all concerns they raised were adequately addressed.

Furthermore, I took adequate measures to protect the interview data of the study against accidental loss and unauthorised manipulation and/or access. The interview data was stored in a secure folder on a storage hard drive and my

Google Drive. My Google Drive served as a backup in case of human error or hardware failure which might lead to losing the data on the storage hard drive. I adopted the 5 years data storage policy by the European Commission, Ethics and Data Protection (2018). Lastly, I assured the participants that their consent will be sought if the data is to be released to a third party.

Data Processing and Analysis

Thematic analysis was used to analyse the data collected from the interviews. Scholars recommend different stages in thematic analysis (Cope, 2014; Vaismoradi, Tutunen, & Bondas, 2013; Braun & Clarke, 2013). I used the thematic analysis by Braun and Clarke (2013) because of its simplicity and clarity. Table 1 presents the seven stages of thematic analysis proposed by Braun and Clarke (2013) that was adopted to analyse the data.

Table 1: *Stages of Thematic Analysis*

Stage	Thematic Analysis
1	Transcription
2	Reading and familiarisation; taking note of items of potential interest
3	Coding-complete; across entire dataset
4	Searching for themes
5	Reviewing themes (producing a map of the provisional themes and subthemes, and relationships between them-aka the 'thematic map')
6	Defining and naming themes
7	Writing-finalising analysis

Source: Braun and Clarke (2013)

This section describes how the data were analysed thematically based on the seven stages outlined as follows:

Stage 1-Transcription: Data transcription has been identified as the most critical stage of analysing qualitative data with thematic analysis because low-quality transcription will negatively affect the subsequent stages (Braun & Clarke, 2013). In view of this, the research data were manually transcribed despite the enormous effort and time needed for copying of a transcribed interview (See Appendix E). This was done to have thorough and quality data transcription and to start familiarising with the data (Linneberg & Korsgaard, 2019). Lastly, numeric codes were given to each interviewee based on the order in which they were interviewed. That is, teacher 1, teacher 2, teacher 3, teacher 4, and so on.

Stage 2-Reading and Familiarisation; Taking Note of Items of Potential Interest: This stage is characterised by taking note of items of potential interest. To familiarise myself with the depth and breadth of the data, I repeatedly listened to the audio recordings and repeatedly read the content of the transcribed data. I took notes of items of potential themes from the transcribed data based on patterns and meanings. Examples of the notes I took are: giving children exercises, finding strengths and weaknesses, finding understanding level, observing participation in class activities, inadequate teaching, and learning resources, resource centres and resource teachers, low parental involvement, and absenteeism of children.

Stage 3-Coding-Complete; Across Entire Dataset: A code in qualitative research is a word or short phrase that symbolically assigns a summative or salient portion of language-based data (Saldana, 2021). A coding scheme was developed to help in the analysis and interpretation of the data (See Appendix G). I applied codes across the entire data extracts and identified the

units of analysis that contain important information related to the research questions for easy understanding by underlining them. Examples of the codes are: exercises, understanding level, strength and weakness, written exercise, observing, reading difficulty, writing difficulty, mathematics difficulty, difficulty in seeing, difficulty in hearing, moving to a different seat, separate work, parents' low education level, overloaded syllabus and curriculum, and absenteeism.

Stage 4-Searching for Themes: I organised the codes into potential themes and collated all the relevant coded data extracts within the themes that were identified. After that I compiled the main themes that were identified along with the extracts and codes. For example: codes such as 'exercises', 'understanding level', and 'strengths and weaknesses' were put under the theme, 'teachers' understanding of assessment'. The codes, 'written exercise', and 'observing' were put under the theme 'teachers' identification of LDs'. The codes, 'moving to different seats', 'separate work', and 'demonstrating the skill' were put under the theme, 'teachers' remediation efforts'. The codes 'difficulty in seeing', and 'difficulty in hearing' were put under the theme, 'teachers' reasons for making referral'. The codes 'overloaded syllabus and curriculum', 'parents' low educational level', 'absenteeism', 'need for resource teachers', 'need for resource centres', and 'inadequate teaching and learning resources' were put under the theme, 'challenges teachers face in assessing children at-risk of LDs'.

Stage 5-Reviewing Themes (Producing a Map of the Provisional Themes and Subthemes, and Relationships Between Them-aka the 'Thematic Map'): Themes that had similar interpretations were put together meaningfully. Also, when there was not enough evidence to support a theme(s) or data that

were too diverse, I broke them down into separate themes or subthemes. In all, eight main themes with twenty two sub-themes were generated (See Appendix F). For example, the theme, 'teachers' identification of LDs' had two sub-themes namely, through written exercises, and through observations. The theme, 'teachers' remediation efforts' had three sub-themes namely, classroom seating arrangement, differentiated instruction, and modelling. The theme, 'teachers' reasons for making referral' had two sub-themes namely, sight problems and hearing problems. The theme, 'teachers' collaboration with others' had two sub-themes namely, collaboration with parents and collaboration with headteachers and colleague teachers.

Stage 6-Defining and Naming Themes: I read over the coded and collated data extracts for each theme, and organised them coherently and consistently with concise names. Additionally, themes were fit into the 'map' the data is telling to facilitate readers' understanding of what each theme is about concerning the research questions. For example, information obtained from teachers about how they identify children at-risk of LDs was named as 'teachers' identification of LDs'. Furthermore, narratives given by teachers about the ways they help children to improve their performance in learning were captured as 'teachers' remediation efforts'. The theme that contained information about how teachers involve parents, headteachers, and colleague teachers in assessing children at-risk of LDs was named as 'teachers' collaboration with others'.

Stage 7-Writing-Finalising Analysis: I presented the analysis of the 'map' the data was telling in a concise, coherent, logical, non-repetitive, and interesting manner. In reporting the findings, I reviewed and put together all ideas collected

from the data under themes and sub-themes with sufficient verbatim extracts including pauses and hesitation of interviewees' audio recordings.

Chapter Summary

This chapter presented the research methods of the study in sub-sections. These are: research design, study area, population of the study, sample and sampling procedures, data collection instrument, pilot-testing of the research instrument, criteria to determine trustworthiness, data collection procedures, ethical considerations, and data processing and analysis.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

The purpose of the study was to explore teachers' experiences in assessment process for children at-risk of LDs in Cape Coast Metropolis. This chapter presents the results and discussions of the study in four sections. The first section deals with the demographic information of the interviewees. The second section focuses on the analysis of the interview data. The third section deals with the results of the study. The last section focuses on the discussion of the findings. The code given to interviewees is in bold type and verbatim responses are in italics and single quotation marks.

Demographic Information of Interviewees

A total of 16 basic school teachers comprising 8 females and 8 males were interviewed. One of them had a Master of Philosophy degree, one had a Master of Education degree, 10 had a Bachelor's degree, and four had a Diploma. There were six KG teachers and ten lower primary teachers. The years of teaching experience in years of KG and lower primary teachers were 5-16 and 5-20 years respectively. The age range of KG children was 3-8 and lower primary children was 5-12. The class size of KG was 24-34 children and the lower primary was 20-59 children.

Analysis of the Interview Data

This section presents the thematic analysis of the interview data on the research questions. Table 2 presents the themes and sub-themes that emerged from the analysis of the interview data in line with the research questions.

Table 2: *Emerged Themes and Sub-Themes*

Main themes	Sub-themes
Teachers' understanding of assessment	Meaning of assessment Types of assessment techniques
Teachers' understanding of LDs	Meaning of LDs Types and characteristics of LDs Prevalence of LDs
Teachers' identification of LDs	Through written exercises Through observations
Teachers' remediation efforts	Classroom seating arrangement Differentiated instruction Modelling
Teachers' reasons for making referral	Sight problems Hearing problems
Teachers' collaboration with others	Collaboration with parents Collaboration with headteachers and colleague teachers
Challenges of teachers in assessing children at-risk of LDs	Instructional challenges Challenges in collaborating with parents Challenges in the availability of resource teachers Challenges in the availability of resource centres
Teachers' suggestions on improving assessment of children at-risk of LDs	Provision of training programmes on assessment for LDs Provision of resource teachers Provision of resource centres Provision of teaching and learning resources

Results

Teachers' Understanding of Assessment

Teachers were asked to talk about their understanding of assessment. Their responses generated two sub-themes. They are: meaning of assessment and types of assessment techniques.

Meaning of Assessment

The narratives given by 14 out of the 16 teachers interviewed suggested that teachers see assessment as an activity in the classroom where children are given exercises to do after teaching to find out their understanding level, and their strengths and weaknesses. In support of this assertion, verbatim responses of some of the teachers who were interviewed are presented:

'Ermm assessment is like giving children exercises after teaching to know those who understood the lesson and those who did not understand the lesson' **(Teacher 1)**.

'When we say assessment, it means giving some form of exercise to children to do so that you will know their understanding level and erhh like their strength and weakness' **(Teacher 5)**.

'Mmmm I think assessment is like giving the children some exercises and from the scores they get, you will know whether the children understood what you taught or not' **(Teacher 3)**.

'*Assessment is...*{Pause}*...like the class exercise we give them after teaching so that we will know their weakness and strength and how they understood the lesson'* **(Teacher 2)**.

Types of Assessment Techniques

Twelve out of the 16 teachers interviewed mentioned written exercise as a type of assessment technique and described it as work they give to the children after teaching. According to the teachers, the children are to do the work in their exercise books. Examples of the work are solving mathematical problems, reading comprehension exercises, and writing exercises. In connection to this, a teacher said, *'Exercise is one of them. After teaching we give them exercises as a way of assessing them'* **(Teacher 13)**.

Some other teachers said:

'I think urmm one is the written one. It's the exercises we give the children after teaching. Let's say maths exercise, reading comprehension exercise. I mean in all the subjects' **(Teacher 7)**.

'Ooh…{Pause}*…I know of written exercise. I write the exercise on the board and I ask the children to copy it in their exercise books'* **(Teacher 2)**.

'*Types of assessment, the exercise we give them when we are teaching to know whether the lesson was successful is one'* **(Teacher 11)**.

Ten out of the 16 teachers interviewed mentioned observation as another type of assessment technique and described it as looking at how children participate and perform in class activities such as interacting with peers, counting, writing, and paying attention. In support of this, some teachers said:

'I think observation is one of them. It means….{Pause}*...like watching the children, especially those who don't pay attention in class so that they will focus on what they've been asked to do'* **(Teacher 4)**.

'I've been looking at their work. Like the way they write, the way they count numbers with the bottle tops, and the way they behave to find out whether they are doing the right thing or not' **(Teacher 3)**.

'Oooh. I think that when you observe the children you look at how they play with their friends, and....{Pause}*....like how they behave'* **(Teacher 2)**.

'With observation, we look at how they write and how they talk because some of the children it's like their speech is not clear' **(Teacher 6)**.

Teachers' Understanding of LDs

Teachers were asked questions to explore their understanding of LDs. Their responses constituted three sub-themes and they are: meaning of LDs, types and characteristics of LDs, and prevalence of LDs.

Meaning of LDs

The descriptions given by 15 out of the 16 teachers interviewed suggested that teachers understand the term LDs as children who have problems in learning to read, write or do mathematics. Teachers consider children who struggle to understand lessons as those at-risk of LDs. Verbatim responses given by some teachers in support of this assertion are presented:

'I think learning difficulty is when children have problem in reading ermm writing, or maybe solving some maths questions' **(Teacher 6)**.

'Learning difficulties means the problems learners encounter or have in let's say...{Pause}*...writing the alphabets, pronouncing words, doing mathematical calculation like addition, subtraction and the rest'* **(Teacher 9)**.

'Okay, I think that when we say learning difficulties, it means the problems children face in learning. Someone who doesn't understand anything you teach' **(Teacher 2)**.

'Ermm It means when children struggle to learn the things teachers teach them' **(Teacher 4)**.

Types and Characteristics of LDs

Concerning teachers' understanding of the types and characteristics of LDs, 11 out of the 16 teachers interviewed described three types of LDs (that is, reading difficulty, writing difficulty, and mathematics difficulty) and their respective characteristics. The teachers interviewed described the characteristics of reading difficulties. These are: poor pronunciation of words, omitting words when reading, misplacing letters and words when reading, and lack of interest in reading. In writing difficulties, the characteristics teachers described are: mixing of upper and lower case letters, poor spacing of letters and words, inappropriate size of writings, writing in inappropriate direction (that is, left to right), and misplacing letters and words when writing. Also, the teachers interviewed reported that children with mathematics difficulties show signs such as poor counting skills, quantity discrimination problems, poor sequencing, and inability to add and subtract numbers. In support of this, some teachers for example said:

> *'As for the children in my class, some cannot read well ooh… they cannot pronounce the words correctly. They will skip the word because they cannot pronounce it…*{Pause}*…others too when they are counting bottle tops, they don't separate them. Hmm some of them too will not space out when writing. They will write everything together'* **(Teacher 5)**.
>
> *'There is one child in my class who writes so tiny that you cannot even see. I have some too who cannot add or subtract numbers*

at all. Ooh…{Pause}*…I have few children too who cannot read well. They will either miss the words or pronounce it wrongly and some too because they cannot read, they will not make any attempt at all'* **(Teacher 16)**.

'Oh yes. Especially when it comes to maths, reading, and writing, some of the children have lot of issues. As for maths, their problem is with take away and sharing of numbers... Some too can't tell the difference between quantities. When it comes to reading, they cannot blend the sounds and as for writing, it's not good at all. They will mix the upper case and lower case letters together. Some too will write from left to the right' (**Teacher 8)**.

Prevalence of LDs

Concerning the prevalence of the types of LDs, 13 out of the 16 teachers interviewed reported that children's main difficulty in learning is reading. A teacher was quick to say that reading is the common learning problem most children have in her class. She said, *'Some children have problems in many areas but reading is their main problem. They struggle with the sounds of the letters and blending them'* **(Teacher 14)**.

Other teachers had this to say:

'Errm I can say that when it comes to reading, a lot of them have issues. Their main problem is reading. As for maths if you teach them continuously they pick but for reading! Hmmm you will do aaaa they will not get it' **(Teacher 8)**.

'The children have difficulty with writing but reading is their biggest problem. Because of that the government introduced a programme called Learning for we the teachers' **(Teacher 9)**.

'When I look at all the difficulties, reading is their biggest challenge here' **(Teacher 1)**.

'In my class, their main problem is reading' **(Teacher 5)**.

Regarding the prevalence of LDs among boys and girls, 11 out of the 16 teachers interviewed said that a greater percentage of the children at-risk of LDs in their classroom are boys. Verbatim responses given by some of the teachers interviewed in connection to this are presented:

> *'If I should recall, ermm I will have about ermm half of the children. So if I have thirty one, I will say it's about fifteen. I think the girls, I will have about six and the boys will be nine'* **(Teacher 4)**.

'I have twenty two children in my class and out of that I have erh three children with learning difficulty. They are two boys and one girl' **(Teacher 11)**.

'In my class, the children are twenty one now. I will say...{Pause}*...about seven of them have learning difficulty. The boys are five and the girls are two'* **(Teacher 13)**.

'Oh let's say if I take the thirty six children in the class, I will have urmm ten. The girls are four and the boys are six' **(Teacher 3)**.

Teachers' Identification of LDs

In exploring the ways through which teachers identify children at-risk of LDs, two sub-themes emerged from their descriptions. They are: through written exercises and through observations.

Through Written Exercises

The narratives given by 13 out of the 16 teachers interviewed suggested that teachers use classroom written exercises to identify children at-risk of LDs. Teachers considered children who consistently do not do well in class exercises as those at-risk of LDs. Examples of the class exercises are: writing, identification of letters, identification of numbers, counting and recording of numbers, adding and subtracting numbers. Examples of verbatim responses given by some teachers in support of this assertion are presented:

'As for identifying them, some of the children, if you ask them to…{Pause}*…let's say, circle letter e, they will circle something else for you. And some too if you ask them to match numbers to let say…*{Pause}*…objects, they will be doing their own thing. So when it happens like that I think the child may be having some learning issues'* **(Teacher 10)**.

'Oh…as for that one, I can know those who have learning difficulties through how they are able to do the exercises in class because there is this child who always gets the lowest score in class. I can say she has learning difficulty' **(Teacher 2)**.

'The way some of the children write in their work book alone will make you know they have learning problems. They will be mixing the letters and turning them left and right and up and down' **(Teacher 14).**

'If I ask you to write the alphabets in your work book and you are not able to write then this will alert me that the child has a problem' **(Teacher 5)**.

Through Observations

The descriptions given by 9 out of the 16 teachers interviewed suggested that teachers identify children at-risk of LDs by observing their participation and performance in classroom activities which include reading, writing, paying attention, and self-expression. In connection to this, examples of verbatim responses given by some teachers are presented:

'Some of the children, when you look at their behaviour in class, you will know that they have disability because they cannot sit still, they will be roaming in the class' **(Teacher 5)**.

'If I see that you are dull in class and…you don't show interest in writing, reading or doing anything then it means something is wrong with the child' **(Teacher 10)**.

'As they are here, we look at them...{Pause}*...maybe ermm from the way they talk and like the way they behave...We can see if they have learning problems'* **(Teacher 4)**.

'If I look at the way she talks, it's doesn't come out clear. So I think we can know those who have learning problems from looking at the way they behave' **(Teacher 1)**.

Teachers' Remediation Efforts

Teachers were asked to tell the kind of remediation effort(s) they make to help children at-risk of LDs improve their academic performance. Three sub-themes emerged from their narratives and they are: classroom seating arrangements, differentiated instruction, and modelling.

Classroom Seating Arrangements

Nine out of the 16 teachers interviewed reported that they change the seating position of the children by moving them to the front if they find that the children cannot see what has been written on the board from the back. The descriptions given by teachers suggested that they change the children's seating position so that they can see information presented on the board with the aim of improving their writing and reading skills. In support of this, some teachers had this to say:

> *'There is one boy who initially we thought he wasn't good but when we moved him to the desk in front, he was picking paa. I think maybe it is because he was not seeing from where he was sitting'* **(Teacher 10)**.

'As for what we do, we do a lot ooh. Sometimes we can change their seating position to the front so that we can monitor them well' **(Teacher 13)**.

'If I see that their seating position is not helping them to see what's on the board because of the sun rays, I move them to sit at where they can see' **(Teacher 2)**.

'I've noticed that some of the children they want to be close to the teacher. I think that makes them feel motivated so I normally move the weak ones in front so that I can assist them' **(Teacher 5)**.

Differentiated Instruction

The narratives given by 10 out of the 16 teachers interviewed suggested that as part of teachers' remediation efforts, they give children a separate task to perform based on their strengths, while the general class will be learning the regular syllabus. The teachers interviewed said that they give the children specific work to do which is often below what is being taught to the general

class. Examples of the work are: writing specific letters of the alphabet, colouring, and tracing. In connection to this, a teacher said, *'You see the boy over there, because he can't write his name, every morning, I make him write his name three times'* **(Teacher 16)**.

'Ooh I give them separate work. Maybe they will trace letters because they cannot do what the rest are doing' **(Teacher 7)**.

'Hmmm. When it happens like that for me…{Pause}*… hmmm I give them something to do to keep them busy...*{Pause}*...like colouring or something'* **(Teacher 3)**.

'Some of the children are still doing two letters words while others are doing above two letter words' **(Teacher 1)**.

Modelling

The descriptions given by 12 out of the 16 teachers interviewed suggested that among the remediation efforts teachers make to improve children's performance is modelling. According to the teachers, they demonstrate how to perform the skill such as writing and counting to the children and the children are asked to imitate the behaviour they have demonstrated. In support of this, a teacher said, *'I go to their desk or sometimes I call them to my table and I write for them to see the position and movement of my wrist and the pencil'* **(Teacher 14)**.

Other teachers said:

'*Let say if we are doing writing, I stand in the same direction of the children then...*{Pause}*...I write in the air for them to see the pattern I'm moving my finger'* **(Teacher 1)**.

'For those who cannot count properly, personally, I take my time to count the bottle tops for them and I ask them to look at the way I separate the counters when counting' **(Teacher 8)**.

'When I'm teaching something like addition or let's say writing, I solve it for them to see how I did it then I will ask them to do it' **(Teacher 9)**.

Teachers' Reasons for Making Referral

Teachers were asked to give their reasons for making a referral when their remediation efforts do not improve children's academic performance. Two sub-themes emerged from their responses and they are: sight problems and hearing problems.

Sight Problems

The narrative given by 10 out of the 16 teachers interviewed suggested that teachers refer children by advising their parents to take them to an optometrist for further assessment especially, when children show signs of difficulties in seeing such as walking to the front and standing in order to see what is written on the board, frequently robbing the eye, and copying information on the board wrongly. In support of this, some teachers said:

> *'The boy I told you about, he can come to the front and look and go back and write, I met his uncle in town so I told him they should take the boy to the hospital because I can't do anything about it'* **(Teacher 6)**.

'About two years ago, I had one case like that...the girl's eyes were always red and always, she will be robbing the eyes. So I asked the mother to take her to UCC eye clinic' **(Teacher 15)**.

'Oh yes. I have changed her seating position but still. So I asked her mother to check up from the eye clinic. Who knows! maybe the child has a problem with the eye' **(Teacher 7)**.

'*For medical attention, unless the child has a problem with the sight. Problems like this we ask their parents to take them to the hospital'* **(Teacher 9)**.

Hearing Problems

Nine out of the 16 teachers interviewed reported that they refer children by advising their parents to take them to an audiologist when children showed signs of difficulties in hearing such as turning one side of the ear when listening to instruction, not responding to verbal instruction, and when an object is stuck into their ears. In support of this, some teachers had this to say:

> *'There is this boy who put an eraser in his ear and it's like the thing was rotting so I told the head and we asked the mother and father to take him to the hospital so that they will remove it'* **(Teacher 6)**.
>
> *'Last year I had one girl when you're standing far and you talk to her she can't hear unless you get close to her so I met the mother at church and I told her about it...I asked the mother to check up at the hospital maybe something is wrong with the girl's ear'* **(Teacher 12)**.

'One boy when you are talking to him, he will turn his face to one side so I told his father if he can take him to hospital...maybe something is wrong with his ear' **(Teacher 10)**.

'That boy, when I'm marking the register I have to shout his name and wave my hand or else he will not hear. I think he needs to be sent to the ear clinic' **(Teacher 14)**.

Teachers' Collaboration with Others

Teachers were asked to describe how they collaborate with others in assessing children at-risk of LDs. Their descriptions generated two sub-themes and they are: collaboration with parents and collaboration with headteachers and colleague teachers.

Collaboration with Parents

The narrative given by 9 out of the 16 teachers interviewed suggested that teachers collaborate with parents by inviting them to the school for Parent Association (PA) meetings (formally called Parent-Teacher Association) or contacting them through phone calls to discuss and recommend that the parent take their children to a specialist for further assessment. According to the teachers, this is done when they notice that children have difficulty in seeing, hearing, and/or low academic performance. Examples of verbatim responses given by some of the teachers interviewed in connection to this assertion are presented:

> *'Ooh. Some parents will come if you invite them so we tell them their ward's learning problems and we discuss with them how to help their child. We advise the parents to encourage and assist the children at home'* **(Teacher 5)**.

'If it's about the child's eye, ear...{Pause}*...then I contact the parent to take the child to the hospital because as for those issues we teachers can't handle it'* **(Teacher 14)**.

'I used to call the parents personally with my phone to inform them about their ward's performance in school. I try to find out from the parents what the child does at home after school' **(Teacher 10)**.

'When I see that the child has a problem with the eye, quickly I tell the parents about it because as for eye problems, we teachers can't solve it' **(Teacher 4)**.

The descriptions given by 11 out of the 16 teachers interviewed suggested that teachers collaborate with parents by telling them to guide their children in doing their homework, provide learning materials for the children at home and prevent the children from watching telenovelas. In support of this, a teacher said, *'I tell the parents that they can let their elder siblings help them but they shouldn't do it for them'* **(Teacher 8)**.

Some other teachers had this to say:

> *'Some of the children will be talking about telenovelas. I'm free with their parents so I told them not to make the children watch those movies. They show it at 9PM sometimes 10PM so when they come to school they will be sleeping'* **(Teacher 5)**.
>
> *'In Parent Association meetings, we talk to the parents about their children's performance and how we can help the children together. Like buying learning materials for the children and assisting them at home so that we teachers will do our part too'* **(Teacher 6)**.

Collaboration with Headteachers and Colleague Teachers

Twelve out of the 16 teachers interviewed reported that they collaborate with their headteachers and colleague teachers to find strategies to assist children with learning problems. According to the teachers, they held staff

meetings to discuss and share ideas on ways to improve children's academic performance. Some teachers said that they use the headteacher as a medium to reach out to parents who consistently refuse to honour their invitation to the school to discuss problems they have observed about their children. In connection to this assertion, examples of verbatim responses given by some of the teachers are presented:

'In staff meetings we discuss the problems we encounter with teaching the children…My colleagues give their opinion on how I should go about it...' **(Teacher 10)**.

'In extreme cases, I inform the head about it. He gives me some ideas and it's because when the head invites the parents they will take it serious' **(Teacher 6)**.

'We the teachers including the head, we have a small committee in the school...{Pause}*...when we meet we share ideas on how to go about helping the children'* **(Teacher 8)**.

'My colleague teachers may have faced the same problem before so they tell me how they went about with it' **(Teacher 4)**.

Challenges Teachers Face in Assessing Children At-Risk of LDs

In exploring the challenges teachers face in assessment process for children at-risk of LDs, four sub-themes emerged from their responses. They are: instructional challenges, challenges in collaborating with parents, challenges in the availability of resource teachers, and challenges in the availability of resource centres.

Instructional Challenges

The narratives given by 11 out of the 16 teachers interviewed suggested that teachers considered the content of the syllabus and curriculum as highly loaded. According to the teachers, it made it difficult for them to complete the syllabus on time because they have to spend more time assisting children at-risk of LDs in their classrooms. Also, some teachers said that they get frustrated, depressed, headache and bodily pain because they have to find ways to improvise due to inadequate teaching and learning materials. In support of this assertion, some teachers had this to say:

> *'Because we are to finish the syllabus, sometimes I have to skip some of the things so that I can finish it… It's not our fault because I have to go round and make sure every child is improving and I don't want any problem with the Circuit Supervisor'* **(Teacher 2)**.

'Honestly, sometimes I feel frustrated and depressed because I have to buy cardboard and design teaching materials for the children with my own money' **(Teacher 8)**.

'Personally, I think that the new curriculum is loaded with lot of things to teach the children. The children cannot understand all the content because it's too much' **(Teacher 11)**.

'Oh sir. Hmmm sometimes when I get home, I feel very tired and I feel pains all over my body because I will talk saah [continuously] *and be going up and down. The curriculum content is over packed'* (**Teacher 4)**.

Fourteen out of the 16 teachers interviewed said that they have not been supplied with textbooks for the new curriculum, there is no ICT laboratory, and

internet facility. In connection with this, a teacher said, *'Even the new curriculum, they haven't given us textbooks to teach the children'* **(Teacher 6)**. Some other teachers had this to say:

'Can you imagine...{Pause}*...hmm. The government has not provided schools with textbooks for the new curriculum. We have no option than to use the old textbooks'* **(Teacher 4)**.

'It's not easy ooh. We do ICT as a subject and even they said we should make use of technology and internet in teaching the children but ask yourself where are they…' **(Teacher 12)**.

Also, 9 out of the 16 teachers interviewed reported that the absenteeism of children makes it difficult to promote effective teaching and learning in the classroom and to finish teaching the syllabus within the stipulated time. In support of this, some teachers had this to say:

'Some of the children are not punctual. So it makes the work difficult for us because sometimes we have to repeat the lesson over and over and over' **(Teacher 8)**.

'Oh Sir. Hmmm. They don't come to school regularly ooh. Some parents will take the children with them to the market or to the sea side to buy or sell fish instead of bringing them to school' **(Teacher 10)**.

Challenges in Collaborating with Parents

The narratives given by 15 out of the 16 teachers interviewed suggested that working with some parents is difficult due to their low education level and inadequate support for their children. Some teachers reported that the fishing community the parents find themselves in has negatively affected the extent to which they participate and involve themselves in their children's education.

Examples of verbatim responses given by some teachers in support of this assertion are presented:

'Hmm. I think most of the parents because they have low education, it's like they show no interest in their children's education' **(Teacher 8)**.

'Some parents too when you ask them to buy books for their children they will be fighting with you that erh the government said they shouldn't buy anything' **(Teacher 16)**.

'Some of the parents they don't show any seriousness when you tell them about something you have seen about their children' **(Teacher 4)**.

'I think because the parents are in a fishing community, they don't have the interest to involve themselves in their ward's education' **(Teacher 5)**.

The narratives given by 13 out of the 16 teachers interviewed suggested that most parents do not assist their children to do their homework. In connection to this, a teacher said, '*Oh. Hmm. Some of the children will come to school without doing their homework. The parents don't watch the children to do it'* **(Teacher 4)**.

Some teachers had this to say:

'As for this homework thing, I have said it aaah [continuously]. *I had an issue with one parent because of it'* **(Teacher 5)**.

'Hmm. Home work! You see, they are kids so they will forget but what about the parents. They don't remind the children to do their homework' **(Teacher 10)**.

'It's the parents ooh. They will complain that why have we given the children lot of homework and all that' **(Teacher 12)**.

Challenges in the Availability of Resource Teachers

The narratives given by 14 out of the 16 teachers interviewed suggested that teachers did not have the assistance of resource teachers and this made it difficult for them to effectively address the difficulties children have in learning. This has compounded classroom management problems because teachers need to spend more time with children at-risk of LDs who need constant assistance. In connection to this, a teacher was quick to say that *'...honestly, we don't have much idea about this disability thing... and we don't have resource teachers to assist us in teaching these children'* **(Teacher 2)**.

Some teachers had this to say:

'The government has not provided us with teachers who are into...{Pause}*...disabilities so if I do my part and the child is still not picking, I can't do anything about it'* **(Teacher 14)**.

'*I'm sure the universities produce lot of special education teachers but they are just not available to us so it makes the work difficult for us'* **(Teacher 10)**.

'I know the centre at UCC have teachers who are expert in handling them but they are not enough for all the basic schools in Cape Coast' **(Teacher 13)**.

Challenges in the Availability of Resource Centres

Ten out of the 16 teachers interviewed reported that the unavailability of resource centres for basic schools in Cape Coast made it difficult for children at-risk of LDs to receive educational support services in specific areas of their academic difficulties. Additionally, the narratives given by the teachers suggested that due to the unavailability of resource centres, children at-risk of LDs did not get the opportunities to be taught by resource teachers who can apply research-based instructional techniques and approaches. Examples of

verbatim responses given by some teachers in support of this information are presented:

'As I said earlier, at the basic schools we don't have resource centres not even in the town' **(Teacher 10)**.

'Even in Cape Coast here, I don't know any resource centre for basic schools where we can take the children there. Maybe only the one in UCC but that's not enough' **(Teacher 12)**.

'Here, we don't have resource room and that is another problem because the children will be promoted to the next class without learning somethings' **(Teacher 3).**

'Apart from the resource centre at UCC, I don't know any one again in Cape Coast. All those who have learning problems in Cape Coast basic schools can't go to UCC resource centre' **(Teacher 7)**.

Teachers' Suggestions on Improving Assessment of Children At-Risk of LDs

Teachers were asked to give their suggestions on ways assessment of children at-risk of LDs can be improved. Four sub-themes emerged from their responses. They are: provision of training programmes on assessment for LDs, provision of resource teachers, provision of resource centres, and provision of teaching and learning resources.

Provision of Training Programmes on Assessment for LDs

Nine out of the 16 teachers interviewed reported that they needed training programmes on assessment for LDs to equip and update their knowledge and skills to effectively manage instructions for children at-risk of LDs in their various classrooms. In support of this, some teachers said:

'My suggestion is that because we the teachers we don't have much idea about how to handle special children. The government should organise training for us' **(Teacher 2)**.

'Ooh I think if they organise workshop for us it will be fine so that we can learn new assessment methods to assess and teach the children' **(Teacher 8)**.

'...Because we have been teaching for many years, we have forgotten a lot of the things we learnt in school about assessment. So if the government can organise regular workshops for us, I think that will help' **(Teacher 5)**.

'We need more training on assessment to update ourselves' **(Teacher 3)**.

Provision of Resource Teachers

The narratives given by 14 out of the 16 teachers interviewed suggested that teachers needed resource teachers to assist them in assessing and teaching children at-risk of LDs in their classrooms. According to the teachers, the availability of resource teachers will give them the opportunity to consult them for ideas on how to teach specific skills, behaviours, concepts, and principles to children at-risk of LDs. In connection with this, some teachers had this to say:

'If we can get resource teachers in every school that will also help the children's education because they will assist us in assessing the children' **(Teacher 11)**.

'The teachers who are into special education like yourself should come and assist us because sometimes we can do all we can but still no positive change' **(Teacher 8)**.

'*Since you are doing special education masters, please tell your people to come and help us to teach those who have learning problems or give us advice like how to go about things'* **(Teacher 6)**.

'I think as for the resource teachers like those who are specialist in special education, they know this disability things so we need them in our schools' **(Teacher 14)**.

Provision of Resource Centres

Ten out of the 16 teachers interviewed reported that to ensure the academic progress of every child, enough resource centres furnished with up-to-date teaching and learning materials that appeal to children's interests and learning needs should be provided for basic schools in Cape Coast. The teachers further said that they do not have adequate research-based skills and knowledge to manage instructions for children at-risk of LDs in their classrooms. Therefore, the involvement of resource teachers is essential. In support of this, some teachers had this to say:

> *'Oh like let's say every two basic schools should have one resource centre so that after school the children can go there or the teachers over there can even come here like the way UCC resource centre has been doing'* **(Teacher 11)**.
>
> *'The government has to provide more resource rooms for us. It shouldn't be only one. And I also think that because we the teachers don't have all the skills to teach especially the children with disabilities, the resource centre will help the children a lot'* **(Teacher 10)**.

'If we have resource centres available to us we can ask for their assistance because we can't do it alone' **(Teacher 2)**.

'Every basic school should have a resource centre or even if there is errm enough of it in Cape Coast that will help' **(Teacher 6)**.

Provision of Teaching and Learning Resources

Twelve out of the 16 teachers interviewed reported that the government should provide schools with teaching and learning resources such as textbooks for the new curriculum, ICT laboratory, internet facility, television, projectors, charts, maps, and letter cards. The narratives given by the teachers suggested that the provision of these resources will help to reduce teachers' workload in order to have time to support children at-risk of LDs in their classroom. In connection with this, a teacher said, *'I wish the government can provide every school with beautiful materials for learning… laptops, projectors, erhh and ICT centre and even real objects so that we can take the children there to learn'* **(Teacher 10)**.

> *'If we have the materials like charts, letter cards, maps, pictures, videos and even internet, we can use it to teach the children and I'm sure those who are lacking behind will improve far far better. I think the teaching and learning materials will make the lesson interesting for them'* **(Teacher 12)**.

'We are in 21st century but we still use materials of the old days. I think if we get a television here...{Pause}*...the children understand better if they see, hear, and touch what you are teaching them'* **(Teacher 14)**.

Discussion

This section presents the discussion of the findings of the study. The discussion is presented in themes that are in line with the research questions.

Teachers' Understanding of Assessment

During the interviews, the teachers described how they understood the term assessment. The results of the study showed that teachers understood the

term assessment as an activity in the classroom where children are given exercises based on what has been taught to verify their understanding of lessons and identify their strengths and weaknesses. Teachers viewed assessment as activities limited to the classroom that require them to give a form of a task to children to perform and score their output to determine their understanding levels. It was further revealed in the study that although teachers had some understanding of assessment techniques (that is, written exercise, and observation), they had limited understanding of other types of assessment techniques such as checklist, rating scale, and ecological assessment posited in literature by Rowlands (2007), Kuiken and Vedder (2017), and Anders et al. (2012) respectively. This finding corroborates with the finding of a study in Ghana conducted by Frimpong and Osei (2021), who reported that teachers had some experience as they use the assessment tool (that is, written exercise) but they could not use multiple tools in their assessment practices because they had limited understanding about them.

Additionally, teachers' understanding of the term assessment as giving exercises in the classroom is not in agreement with the three main components of the meaning of assessment in the existing literature which is: a systematic process, gathering educationally relevant information about children, and making legal and educational decisions (NCSE, 2006). It is, therefore, important for teachers to have adequate understanding of assessment because it is the foundation for using appropriate assessment techniques and activities in identifying children at-risk of LDs, and making remediation efforts (Salvia, Ysseldyke, & Witmer, 2017). Having adequate understanding of multiple assessment techniques can make it less worrying for teachers to prepare

appropriate tasks to assess specific domains of children's development hence, giving every child the opportunity to demonstrate his or her abilities (Virinkoski, Lerkkanen, Holopainen, Eklund, & Aro, 2018).

Furthermore, teachers' understanding of assessment as giving children class exercises to verify their understanding of lessons and identify their strengths and weaknesses does not reflect the two principles of assessment posited in literature by Gyimah, Ntim, and Deku (2010). The principles state that assessment should go beyond the child and should be non-discriminatory. This implies that although written exercises can be used, environmental factors that have an influence on a child and a child with a disability who cannot exhibit his or her abilities in writing but in other forms should be given an alternative assessment such as oral assessment, hands-on-activity, and performance assessment. It was further discovered in the study that teachers described two types of assessment techniques (that is, written exercise and observation). These findings corroborate with the informal assessment techniques such as teacher-made test and observation indicated by Salvia, Ysseldyke, and Witmer (2017) in existing literature.

The results of the study showed that teachers were familiar with two types of informal assessment techniques (that is, written exercise and observation). Although, written exercise is used to measure children's performance against a certain criterion of mastery for a specific task (Chen, Chen, & Kim, 2015), observation forms the starting point of assessment as stated by Broadhead (2006). However, given the diverse educational needs and background of children, it is important for teachers to have adequate understanding of the other types of informal assessment techniques such as

performance assessment, portfolio assessment, and ecological assessment posited in literature by Kauffman, Hallahan, Pullen, and Badar (2018). This will help them to provide alternatives for children to demonstrate their abilities through appropriate assessment techniques, activities, and data collection methods that are age-appropriate and content-appropriate for children.

Teachers' Understanding of Learning Difficulties (LDs)

The results regarding teachers' understanding of the term LDs as the problems children have in learning to write, read, and solve mathematical problems is consistent with the definition of LDs by Sardesai (2015). The teachers demonstrated some understanding of LDs. This confirms the findings of studies conducted in Pune city (Daniel et al., 2019), Ghana (Nutsugah, 2019), and Nepal (Ghimire, 2017) respectively. Also, it was discovered in the study that teachers were familiar with three types of LDs (that is, reading difficulty, writing difficulty, and mathematics difficulty). This is probably because they are known to be the common types of LDs in the regular education classrooms (Pierangelo & Giuliani, 2008). These three types of LDs are in line with the reason why the Universal Primary Education was introduced in 1951 which aimed at providing all children with literacy and numeracy skills (Ogawa & Nishimura, 2015).

Regarding teachers' understanding of the characteristics of children at-risk of LDs, the results of the study showed that teachers had an understanding of the characteristics of the three types of LDs children exhibited in their classroom. This is in agreement with the finding of a study conducted by Rosli and Aliaz (2020) in Malaysia that teachers had knowledge about the characteristics of children with SEN. Knowing the behaviours children at-risk

of LDs exhibit is fundamental in the teachers' ability to identify children at-risk of LDs (that is, they will be able to tell if a child is not meeting the expected level of performance). The descriptions teachers gave about the characteristics children at-risk of LDs exhibit include omitting of words when reading, misplacing letters and words when reading or writing, mixing up the lower and upper case letters when writing, and inability to discriminate between quantities. These are in line with the characteristics of children at-risk of LDs suggested by Padhy et al. (2016) and Klingner, Vaughn and Boardman (2015).

Additionally, the results of the study highlighted the common type of LDs in the regular education classrooms. The teachers were of the view that although children exhibited difficulties in learning how to write, and do mathematics, reading was the main problem most children had in the classroom. The results of the study further showed that the major problem children had in reading was the poor pronunciation of words. This problem is in line with poor phonological awareness (that is, the inability to understand that speech is broken into smaller sound units such as words, syllables, and phonemes) as posited by Ruan, Georgiou, Song and Shu (2018). Reading difficulty, as the common type of LDs found in the study, corroborates with the EGRA and EGMA report (2015) conducted by the National Education Assessment Unit of the GES which found that 73.1% of primary two children have difficulties in reading.

The results of the study showed that there were 3-15 children at-risk of LDs in a single classroom. This finding confirms that of Senadza, Ayerakwa and Mills (2019) in Ghana that there is at least one child in the regular education classroom with SEN. It was also discovered in the study that there were more boys than girls at-risk of LDs. This finding corroborates with studies conducted

in India which reported 19% males and 8.5% females (Rao et al., 2017), Florida, 1 out of 4 boys and 1 out of 7 girls (Quinn & Wagner, 2015), and Greece, 7.6% males and 3.8% females (Vlachos et al., 2013). These numbers are an indication of a growing rate of children at-risk of LDs as indicated in the EGRA and EGMA (2015) report. This should draw the attention of stakeholders in education such as parents, teachers, faith-based organisations, and the MoE to work collectively to provide teachers with the support needed to address the individual needs of children at-risk of LDs. This is because teachers may be limited in their abilities to address each child's educational needs.

Roles of Teachers in Assessment Process

In exploring teachers' identification of children at-risk of LDs, the findings of the study showed that teachers identified children at-risk of LDs based on written exercises and observations. These findings (that is, observation and written exercise) corroborate with the findings of previous studies conducted in Ghana which reported that teachers identified learners at-risk of LDs based on observation (Nutsugah, 2019) and written exercise (Asare, 2015). However, it was found in the study that teachers considered children who do not do well in class exercises and in classroom activities as those at-risk of LDs based on their personal judgment without the support of any known developmental assessment theory or enough evidence to support their suspicions. This finding is in agreement with the finding of a study in Ghana conducted by Asare (2015) that teachers' assessment practices were not backed by any recognised developmental assessment theory for children although teachers had some understanding regarding the concept of assessment.

Also, it was discovered in the study that teachers had some level of knowledge about the characteristics of children at-risk of LDs but they did not take into consideration these characteristics in their remediation efforts to improve children's academic performance. Consistent with this, a study in Turkey conducted by Acar-Erdol and Yildizli (2018) reported that although teachers identified the main factor influencing classroom assessment practices as student characteristics, teachers did not reflect these characteristics in their assessment practices. Therefore, the results of the study suggest that teachers are limited in their skills and knowledge to effectively identify and handle children at-risk of LDs. This finding corroborates with the findings of previous studies in Thailand (Pree-iam et al., 2021), Malaysia (Yunus & Mohamed, 2019), and Finland (Virinkoski, Lerkkanen, Holopainen, Eklund, & Aro, 2018).

Additionally, the results of the study regarding teachers' remediation efforts showed that teachers used differentiated instruction, modelling, and changed the seating positions of children to improve their academic performance. The first two findings corroborate with existing literature which suggest that differentiated instruction (Nutsugah, 2019) and modelling (Cihak & Smith, 2018) are ways teachers can enhance learning among children at-risk of LDs. With the changing of children's seating positions, the teachers reported that they move children who struggle to see, children who are slow in learning, and children who do not pay attention in class to the front seat to be easily monitored and supported. Furthermore, the teachers reported that they gave children separate work to do based on their abilities and they demonstrated the skill for children to imitate. It was further revealed in the study that teachers made some remediation efforts such as differentiated instruction to improve

children's academic performance. However, differentiated instruction will become more effective when teachers are motivated, and when an enabling environment is provided to support its implementation in the classroom (Watts-Taffe et al., 2012).

Furthermore, during the interviews, the teachers mentioned the reasons why they refer children for further assessment. The results of the study showed that teachers referred children when they exhibited signs of difficulties in seeing such as frequently walking to the front and standing to see what is written on the board, frequently robbing their eyes, and copying information on the board wrongly. When the children engaged in these behaviours, the teachers reported that they advised their parents to take them to an eye specialist such as an optometrist for further assessment. Also, the teachers referred children for further assessment when children exhibited signs of difficulties in hearing such as turning one side of the ear when listening to instruction, not responding to verbal instruction, and when an object is stuck into their ears. On such occasions, the teachers reported that they advised parents to take their children to an audiologist for further assessment. This finding confirms that of Heine, Slone, and Wilson (2016) in Australia, who reported hearing problem as one of the common reasons for referral. Teachers referred children for further assessment based on these problems probably because the eye and ear are critical organs of the human body needed to function in everyday activity, particularly in learning as argued by Colenbrander, Miles, and Ricketts (2019) and Dubois, Poeppel, and Pelli (2013).

Concerning how teachers collaborate with others in assessing children at-risk of LDs, it was revealed in the study that teachers collaborated with

parents by inviting them for PA meetings and contacted them through phone calls to discuss the problems children have in learning (that is, sight and hearing problems). Teachers advised parents to take their children to a specialist for further assessment. This finding is consistent with previous studies conducted by Mahmood (2013) in New Zealand and Aouado and Bento (2019) in Lebanon, who reported that teachers established contact with parents, and offered recommendations to improve their children's performance. PA meetings are a great platform for parents and teachers to share insight and information for the educational development of children (Girma, 2012). Through PA meetings, parents have the opportunity to look at their child's exercises and artwork, and discuss with teachers about their child's academic performance.

Also, it was revealed in the study that teachers collaborated with their headteachers and colleague teachers. The teachers described their collaboration with headteachers as a means to get the attention of parents when parents consistently decline their recommendations and invitation for a meeting that is meant to discuss problems teachers have observed about their children's learning. This finding corroborates with the literature on the roles of headteachers which suggest that headteachers are responsible for managing the school and ensuring that each child reaches his or her full potentials (Esia-Donkoh, 2014). The results of the study further showed that teachers collaborated with their colleague teachers through staff meetings by seeking their opinions on ways to help children who have difficulties in learning. The involvement of colleague teachers can be a good source of advice on how to support children to learn because they might have experienced a similar problem

and might have developed remediation strategies to address the problem (Glazier, Boyd, Bell-Hughes, Able, & Mallous, 2017).

Challenges of Teachers in Assessment Process

Concerning the challenges teachers face when collaborating with parents, the teachers reported that most parents offered little assistance to their children in doing their homework. This finding corroborates with that of Echaune, Ndiku, and Sang (2015) in Kenya, who reported that parents provided limited assistance in children's homework. According to the teachers, the low level of education of some parents negatively affected their active participation and interest in their children's education. This confirms the finding of a study conducted in Norway by Baeck (2010) that parents with less education did not actively participate in their children's education because they doubt their capacity in academic related issues. Similarly, a study in Ghana conducted by Ghanney (2018) reported that parents' literacy deficiency hindered their involvement in their children's education. Also, the teachers said that working with parents is difficult due to their inadequate support for their children. This confirms the finding of a study in New Zealand conducted by Mahmood (2013) that parents were not willing to actively participate in their children's education. Low parental participation in educating children at-risk of LDs can make teaching stressful for teachers. Therefore, it is essential for parents to be actively involved in their children's education because they are the major stakeholders in education hence, they have direct influence on children's learning (Hidayat, 2021).

Additionally, the results of the study showed that there are inadequate resource centres and teachers do not get the assistance of resource teachers in

providing educational support services for children at-risk of LDs. The educational needs of children at-risk of LD may not be adequately addressed by regular education teachers in the regular education classroom (Somerton et al., 2021; Siska, Bekele, Beadle-Brown, & Zahorik, 2020). This makes it important for schools to be provided with resource centres where children at-risk of LD can receive special education services. Also, the teachers reported that the unavailability of resource teachers increased classroom management problems because teachers would have to add additional responsibilities (that is, spend more time to assist children at-risk of LDs) in the classroom to already existing ones hence, increasing teachers' distress level. This confirms the finding of a study in California conducted by Carver-Thomas and Darling-Hammond (2017) that the unavailability of resource teachers negatively affected the academic achievement of students. The lack of assistance from resource teachers often results in frustration and stress on regular education teachers as reported by Nutsugah (2019) in Ghana. Given the diverse educational needs of children at-risk of LDs in the regular education classrooms, the assistance of resource teachers is essential. It was further revealed in the study that children frequently absented themselves from school. The absenteeism of children can hinder their academic performance. This assertion is confirmed in a study conducted by Ansari and Purtell (2018), who found that children who missed more days of school had low academic achievement. Also, according to the teachers, the absenteeism of children makes it difficult for them to progress from one topic to the other. This is because when children frequently absent themselves from school, they turn to forget what they have been taught as reported by Carroll (2010) as one of the common effects of school absenteeism. Due to this, teachers

are forced to repeat lessons for children to understand since some topics in the curriculum are prerequisites to other topics.

Furthermore, it was revealed in the study that the content of the syllabus and curriculum is overloaded, and are above the cognitive abilities of the children. This finding corroborates with the findings of study in the mid-Atlantic Metropolitan area conducted by Abrams, Varier, and Jackson (2016), who reported highly loaded curriculum content, and high cognitive demand in the curriculum as problems teachers faced in their assessment practices. The teachers reported that it is their responsibility to finish teaching the syllabus within the stipulated time regardless of the nature and scope of the curriculum. This may increase teachers' workload since they have to break down topics into smaller manageable components to meet the abilities of each child in their classrooms. According to some teachers, they had no choice but to proceed to the next topics in the syllabus to finish teaching it to avoid disciplinary actions from the District Education Office at the expense of the children's optimal educational growth and development. From my perspective, children's understanding of lessons should not be substituted for haste completion of the syllabus. This is because if teachers complete teaching the syllabus and children do not understand what has been taught, children may suffer the consequences for not acquiring the knowledge and skills which may be prerequisites in their next academic level. In consonance with this assertion, Kariadinata (2021) found that prerequisite knowledge has a direct impact on pupils' ability to solve mathematics as they progress to their next academic stage.

Also, it was revealed in the study that another challenge teachers faced in assessment process is: inadequate teaching and learning resources

particularly, textbooks for the new curriculum, ICT laboratory, internet facility, television, maps, pictures, and charts. This finding corroborates with the finding of a study conducted in Ghana by Obeng (2012) that there are inadequate resources for teaching children with SEN. Inadequate teaching and learning resources compound teachers' stress in finding solutions to children's difficulties in learning. In support of this, Johnstone (2017) found that the lack of resources made it frustrating for teachers and negatively affected their efforts to handle children with SEN in their classrooms. Lessons are best understood by children especially those at the KG and lower primary levels when teachers use up-to-date materials that children can see, hear, feel and touch rather than when abstract teaching is used. This is emphasised by Piaget's cognitive development theory (Schwichow, Zimmerman, Croker, & Hartig, 2016**).** The unavailability of teaching resources compels teachers to improvise (for example, using stones as a computer mouse and desk as a computer keyboard) as reported by Hyde (2021). In my view, these incidents are not a good projection of the quality of education the country aims to achieve. It is, therefore, vital for teachers to be provided with adequate teaching and learning resources needed to implement the educational curriculum.

Teachers' Suggestions on Improving Assessment of Children At-Risk of Learning Difficulties (LDs)

The results of the study showed that teachers wanted schools to be provided with resource teachers who can assist them provide educational support services and consultation on instructional and curriculum adaptation strategies for children at-risk of LDs in their classrooms. With this provision, regular education teachers will have the opportunity to collaborate with resource

teachers to employ any of the six approaches of co-teaching proposed by Friend and Bursuck (2009). The six co-teaching approaches are: one teaching and one observing, station teaching, parallel teaching, alternative teaching, team teaching, and one teaching and one assisting. Studies have found that children find lessons interesting hence, impactful when co-teaching is employed compared to traditional methods (Gokbulut, Akcamete, & Guneyli, 2020; Lochner, Murawski, & Daley, 2019). Collaborating with resource teachers would, therefore, mitigate feelings of isolation which might lead to job dissatisfaction and burnout on the part of regular education teachers. Also, the involvement of resource teachers is vital because regular education teachers may be limited in their ability to assist and support children at-risk of LDs in their classrooms. Resource teachers have adequate skills and knowledge to apply research-based instructional techniques and approaches to teach children at-risk of LDs (Kauffman, Hallahan, Pullen, & Badar, 2018).

Also, it was revealed in the study that teachers wanted to be provided with periodic training programmes on assessment for LDs. This finding is in line with the recommendation given by Asare (2015) that workshops and training should be provided for teachers on the use of developmentally appropriate assessment practices to update their knowledge and skills in teaching children in the classroom. The organisation of training programmes on topics such as techniques for identifying children at-risk of LDs and remediation strategies will enhance and update teachers' classroom management skills. Furthermore, the teachers were of the view that adequate resource centres should be available in the Metropolis or in the schools and made accessible to all children. According to the teachers, the resource centres should be furnished

with up-to-date teaching and learning resources such as pictures, maps, videos, alphabet board, letter cards, and number cards to teach children at-risk of LDs. In my view, the use of these visual and audio-visual materials will make children at-risk of LDs enjoy learning hence, giving them equal opportunity to learn among their 'non-disabled' counterparts in the classroom.

Additionally, it was found in the study that teachers wanted the Ghana Education Service to provide schools with teaching and learning resources such as textbooks, ICT laboratory, projectors, computers, television, internet facility, maps, pictures, charts, and letter cards to promote teaching and learning for children at-risk of LDs. From my experience as a teacher and interaction with other teachers, the unavailability of textbooks and ICT laboratory seems to be a common challenge in the basic schools. Existing literature recommends that teachers should improvise when there are inadequate resources in the school to teach the children (Holdhus et al., 2016). However, a teacher in a typical basic school where there is no ICT laboratory may find it difficult to improvise because the teaching and learning of ICT require that children can see, hear, touch and feel what is being taught. This is probably because teachers are unhappy with their conditions of service such as salary, promotion, pension scheme, welfare, working environment as highlighted by Geiger and Pivovarova (2018). The lack of these resources can be problematic and stressful for teachers. This is perhaps the reason why Nutsugah (2019) suggested in a study that adequate resources should be channelled to schools to reduce the stress teachers go through in addressing children's difficulties in learning.

Summary

It was revealed in the study that teachers had some understanding of assessment and LDs. Regarding the roles of teachers in assessment process, the teachers identified children at-risk of LDs based on written exercises and observations. They made some remediation efforts and these are: changing seating position, differentiated instruction, and modelling. It was further revealed in the study that teachers referred children for further assessment based on two reasons (that is, sight problems and hearing problems). With these problems, teachers advised parents to take their children to a specialist for further assessment. Additionally, the teachers collaborated with parents, headteachers, and their colleague teachers through PA meetings and staff meetings. Also, it was found in the study that the challenges teachers faced in assessment process are: overloaded syllabus and curriculum content, inadequate textbooks, ICT laboratory, and internet facility, low parental involvement, and inadequate availability of resource teachers and resource centres. The suggestions teachers gave on improving assessment of children at-risk of LDs are: provision of training programmes on assessment for LDs, provision of resource teachers, provision of resource centres, and provision of teaching and learning resources.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter presents the summary, key findings, conclusions, recommendations, and suggestions for further studies.

Summary

The purpose of the study was to explore teachers' experiences in assessment process for children at-risk of learning difficulties (LDs) in Cape Coast Metropolis. The study was guided by five research questions. A qualitative approach with a phenomenological research design was employed for the study. Purposive sampling was used to select four basic schools for the study. Criterion sampling was used to select 16 participants (that is, four from each school) comprising 8 males and 8 females who have a minimum of five years teaching experience at kindergarten (KG) and/or lower primary. A semi-structured interview guide was employed to collect data for the study. The semi-structured interview guide was pilot-tested before being used for the main data collection. Braun and Clarke's (2013) thematic analysis was adopted to analyse the interview data obtained on the research questions.

Key Findings

The following key findings were revealed in the study based on the research questions:

1. Teachers demonstrated some understanding of assessment. They described assessment as giving children exercise to verify their understanding of lessons and identify their strengths and weaknesses.

They also mentioned two types of assessment techniques and these are written exercise and observation.

2. Teachers had some understanding of LDs. They described LDs as problems children have in learning. They mentioned three types of LDs and these are reading difficulty, writing difficulty, and mathematics difficulty.
3. Teachers identified children at-risk of LDs based on written exercises and observations. The remediation efforts teachers made are changing children's seating positions, differentiation, and modelling. They referred children based on sight problems and hearing problems and they advised parents to take their children to specialists for further assessment. They collaborated with parents, headteachers, and colleague teachers through PA meetings and staff meetings.
4. The challenges teachers faced in assessment process are overloaded syllabus and curriculum content, inadequate textbooks, ICT laboratory, and internet facility, low parental involvement, absenteeism of children, and inadequate availability of resource teachers and resource centres.
5. The suggestions teachers gave on improving assessment of children at-risk of LDs are provision of training programmes on assessment for LDs, provision of resource teachers, provision of resource centres, and provision of teaching and learning resources.

Conclusions

Ensuring an optimal education growth and development of children at-risk of LDs in the regular education classroom largely falls on the responsibility of teachers. This often puts teachers under stress and frustration especially when

they exhaust their pedagogical knowledge and skills, when there are inadequate teaching and learning resources, and when there is low parental involvement in children's education. These problems need to be addressed for teachers to have satisfaction in their job and for every child to reach his or her full potential.

Recommendations

Based on the findings and conclusions from the study, the following recommendations are offered:

1. The Ghana Education Service (GES) should provide regular education teachers with training programmes on assessment to update their knowledge of the various types of assessment techniques in special education.
2. The District Education Directorate should provide training workshops on LDs for regular education teachers to update their knowledge of the different types of LDs and their respective characteristics.
3. The GES should provide regular education teachers with in-service training programmes on identification of LDs, remediation, and adaptation techniques to update their knowledge and skills to be able to handle children at-risk of LDs in their classrooms.
4. The GES should appoint resource teachers and assign at least four of them to every basic school to assist regular education teachers to provide educational support services to children at-risk of LDs.

    i. The GES should establish adequate resource centres furnished with up-to-date teaching and learning resources in each of the six circuits in Cape Coast Metropolis to address the educational needs of children at-risk of LDs.

5. Local government authorities should partner with local businesses and organisations to provide basic schools with textbooks, ICT laboratories, laptops, desktop computers, projectors, internet facility, television, charts, letter cards among others to promote teaching and learning among children at-risk of LDs and their 'non-disabled' counterparts.

i. The School Management Committee should collaborate with faith-based organisations and leaders in the community to adopt innovative ways to sensitise parents through mediums such as the mosques, churches, radio, community centres, and television aside the traditional PA meetings.

Suggestions for Further Research

Based on the findings and the conclusions from the study, the following suggestions are offered for further research:

1. The study was conducted in Cape Coast. Further research could expand the geographical location and the population of the study to increase the degree to which the findings could be generalised to other settings.
2. Teachers might have exaggerated in their responses to the research questions to appear they are doing their work efficiently. Therefore, further research could employ observations and collect children's work samples to validate the responses of the teachers in the interviews.
3. The study focused on the perspectives of the teachers hence, further studies could include the perspectives of parents in assessment process to provide additional insight into the factors that seem to hinder their active involvement in their children's education.

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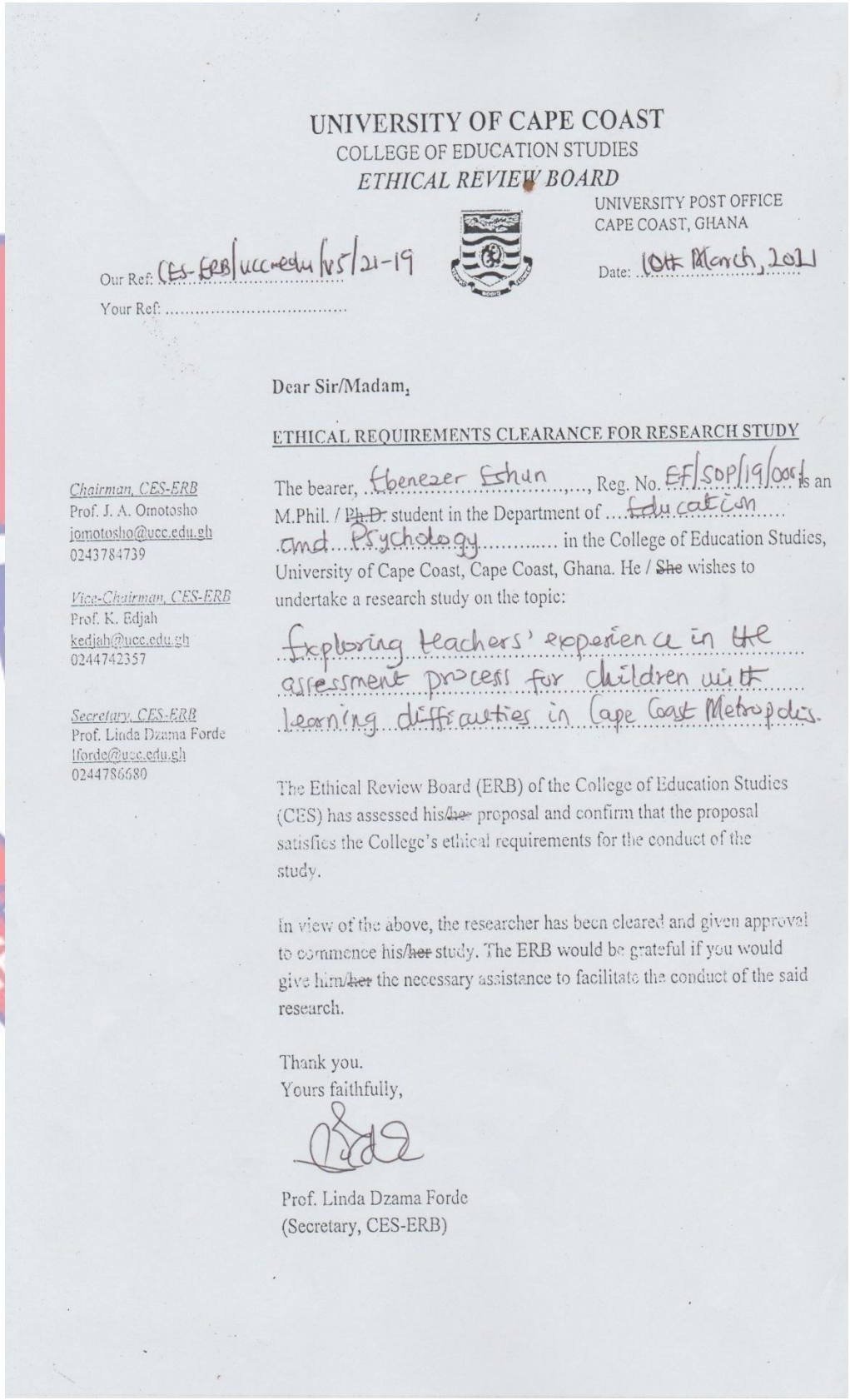
APPENDICES

APPENDIX A: ETHICAL CLEARANCE LETTER



UNIVERSITY OF CAPE COAST
COLLEGE OF EDUCATION STUDIES
ETHICAL REVIEW BOARD

UNIVERSITY POST OFFICE
CAPE COAST, GHANA

Our Ref: CES-ERB/ucc-edu/05/21-19

Date: 10th March, 2021

Your Ref: .....

Dear Sir/Madam,

ETHICAL REQUIREMENTS CLEARANCE FOR RESEARCH STUDY

The bearer, Ebenezer Eshun,..., Reg. No. EF/SOP/19/0051 is an M.Phil. / ~~Ph.D.~~ student in the Department of ...Education... and ...Psychology..... in the College of Education Studies, University of Cape Coast, Cape Coast, Ghana. He / ~~She~~ wishes to undertake a research study on the topic:

Exploring teachers' experience in the assessment process for children with learning difficulties in Cape Coast Metropolis.

The Ethical Review Board (ERB) of the College of Education Studies (CES) has assessed his/~~her~~ proposal and confirm that the proposal satisfies the College's ethical requirements for the conduct of the study.

In view of the above, the researcher has been cleared and given approval to commence his/~~her~~ study. The ERB would be grateful if you would give him/~~her~~ the necessary assistance to facilitate the conduct of the said research.

Thank you.
Yours faithfully,

Prof. Linda Dzama Forde
(Secretary, CES-ERB)

Chairman, CES-ERB
Prof. J. A. Omotosho
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Vice-Chairman, CES-ERB
Prof. K. Edjah
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Secretary, CES-ERB
Prof. Linda Dzama Forde
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APPENDIX B: INTRODUCTORY LETTER

UNIVERSITY OF CAPE COAST
COLLEGE OF EDUCATION STUDIES
FACULTY OF EDUCATIONAL FOUNDATIONS
DEPARTMENT OF EDUCATION AND PSYCHOLOGY

Telephone: 0332091697
Email:dep@ucc.edu.gh

UNIVERSITY POST OFFICE
CAPE COAST, GHANA

3rd March, 2021

Our Ref:

Your Ref:

Dear Sir/Madam,

THESIS WORK
LETTER OF INTRODUCTION
MR. EBENEZER ESHUN

We introduce to you Mr. Ebenezer Eshun, a student with registration number EF/SDP/19/0001 from the University of Cape Coast, Department of Education and Psychology. He is pursuing a Master of Philosophy degree in Special Education and he is currently at the thesis stage.

Mr. Eshun is researching on the topic: **"EXPLORING TEACHERS' EXPERIENCE IN THE ASSESSMENT PROCESS FOR CHILDREN WITH LEARNING DIFFICULTIES IN CAPE COAST METROPOLIS."**

He has opted to collect or gather data at your institution/establishment for his Thesis work. We would be most grateful if you could provide him the opportunity and assistance for the study. Any information provided would be treated strictly as confidential.

We sincerely appreciate your co-operation and assistance in this direction.

Thank you.

Yours faithfully,

Gloria Sagoe
Chief Administrative Assistant
For: **HEAD**

APPENDIX C: CONSENT FORM

Title of Research: TEACHERS' EXPERIENCES IN ASSESSMENT PROCESS FOR CHILDREN AT-RISK OF LEARNING DIFFICULTIES IN CAPE COAST METROPOLIS.

Name of Researcher: EBENEZER ESHUN

Please tick the box if you agree with the statement.

S/N	Description	√
1.	I have read and understand the information about the research.	
2.	I volunteer to participate in the research and I may choose to withdraw from the study without any penalty.	
3.	I understand that I can decline to answer any question or end the interview when I feel uncomfortable.	
4.	I agree that the interview session will be audio recorded and subsequent dialogue will be made.	
5.	I agree to take part in the research work stated above.	
6.	I and the researcher agree to date and sign this consent form.	

Researcher's Name _____ Signature _____ Date _____

Participant's Name _____ Signature _____ Date _____

APPENDIX D: SEMI-STRUCTURED INTERVIEW GUIDE

OPENING

1. **ESTABLISH RAPPORT**: I introduce myself and give my personal details to the participants.
   Name: Ebenezer Eshun
   Email address: ebenezer.eshun@stu.ucc.edu.gh
   Phone number: +233571529191
   Residence: UCC-Old Site (Kokoado)
2. **PURPOSE**: The purpose of the study is to explore teachers' experiences in assessment process for children at-risk of learning difficulties in Cape Coast Metropolis.
3. **TIME LINE:** The interview should take about 35 minutes.

BODY

SECTION A: TEACHERS' DEMOGRAPHIC INFORMATION

1. What is your gender?
2. What is your educational qualification?
3. What class level do you teach now?
4. How long have you taught at the level you have stated?
5. What is your class size?
6. What is the age range of the children in your class?

SECTION B: TEACHERS' UNDERSTANDING OF ASSESSMENT

1. From your experience, please tell me how you understand assessment?
2. What things do you look out for when assessing children?
3. What do you use the information you obtain from children's assessment for?
4. Kindly describe the types of assessment techniques you know?

SECTION C: TEACHERS' UNDERSTANDING OF LEARNING DIFFICULTIES

1. Kindly describe what learning difficulties are?
2. How many children with learning difficulties do you have in your classroom?
3. How many boys and how many girls?
4. What specific academic areas do they have difficulties with?

5. How do the children exhibit their difficulties in specific academic areas?

SECTION D: ROLES OF TEACHERS IN ASSESSMENT PROCESS

1. How do you identify children at-risk of the following:
   a. reading difficulties (for example, letter identification, word identification, letter sounds etc.)
   b. writing difficulties (for example, writing the English alphabets and numbers etc.).
   c. mathematics difficulties (for example, counting, basic operation signs, identification of basic shapes, quantity discrimination, etc.)
2. What do you do in the classroom to improve children's performance in reading, writing and mathematics?
3. What are your reasons for seeking assistance from other professionals to find out the extent of children's difficulties?
4. Please, describe how you seek assistance from resource teachers to assist in assessing and managing children?
5. Kindly tell me how you seek the services of resource centres in addressing the difficulties children exhibit in learning?
6. How do you involve your headteacher when you observe that children show consistent difficulties in learning?
7. How do you involve your colleague teachers in finding ways to improve the academic performance of the children?
8. Kindly describe how you involve parents in assessing children in your classroom?

SECTION E: CHALLENGES OF TEACHERS IN ASSESSMENT PROCESS

1. Please, tell me the difficulties you face when identifying children at-risk of learning difficulties?
2. Kindly tell me the challenges you face in assisting children at-risk of learning difficulties in your classroom?
3. What difficulties do you go through when seeking assistance from medical professionals, resource teachers, and/or resource centres?
4. Please describe the difficulties you face in involving parents in assessing children at-risk of learning difficulties?

SECTION F: TEACHERS' SUGGESTIONS TO IMPROVE ASSESSMENT OF CHILDREN AT-RISK OF LEARNING DIFFICULTIES

1. Please tell me your suggestions in terms of parents' participation in their children's education?
2. What suggestions can you give when it comes to the availability of resource centres?
3. Kindly give me your suggestions in terms of the availability of resource teachers?
4. What suggestions can you give in the area of teaching and learning resources?

CLOSURE

1. **SUMMARISE:** Please do you have anything else to say about our interaction? Including clarification, questions, corrections, comments, etc.
2. **MAINTAIN RAPPORT:** I appreciate the time for this interview. You can contact me anytime if there is anything you want to know or address.
3. **DEPATURE:** I am very grateful for your time, bye.

APPENDIX E: TRANSCRIBED INTERVIEW (TEACHER 8)

Interviewer: As for your gender, it is obvious. Female

Respondent: Yes, female

Interviewer: Please what is your educational qualification?

Respondent: Bachelor's degree

Interviewer: Oh that's nice. So what class level do you teach now?

Respondent: BS 1

Interviewer: Oh okay, so how long have you taught in BS 1?

Respondent: 17 years

Interviewer: What is your class size?

Respondent: 32

Interviewer: What is the age range of the children in your class?

Respondent: 6-7

Interviewer: From your experience, kindly tell me how you understand assessment?

Respondent: Oh okay, assessment means giving children task or exercise to do and through that you will know how well the children understood the lesson and also to know the weaknesses and strengths of the children.

Interviewer: Okay, kindly tell me what you look out for when you are assessing the children?

Respondent: I look out for how children are able to talk and interact with their peers. Let's say if I talk to the child and the child doesn't respond then it may be that the child has a problem. I also look out for how children respond to tasks and questions I ask them in class so that I will get some information from them.

Interviewer: Oh okay. That's fine. So what do you use the information you obtain from children's assessment for?

Respondent: I keep the results so that when the children are promoted to the next class their teacher can trace their performance in their previous class. It also helps me to know the right teaching methods to use next time so that the children will understand.

Interviewer: I see. Please describe the types of assessment you know?

Respondent: I think one is exercise. It is like the exercise we give them after teaching. Observation is another one. Let's say when the children are in class we watch them to make sure they are doing the right thing. We also look at how they write, how they read and how they behave too.

Interviewer: That's nice. Now let's talk about learning difficulties. Please, when we say learning difficulties, how do you understand it?

Respondent: It means when a child is not performing well in class. For example when the child cannot draw, or write, or identify letters, or say the letters or do any task the teacher gives to him or her.

Interviewer: Oh okay, so how many children with learning difficulties do you have in your classroom?

Respondent: I have let's say five of them

Interviewer: Okay, how many are boys and how many are girls?

Respondent: They are four boys and one girl.

Interviewer: Oh I see, can you please tell me the specific academic areas they have the difficulties?

Respondent: I can say that when it comes to reading, a lot of them have issues. Their main problem is reading. As for maths if you teach them continuously they pick but for reading! you will do aaaa [continuously] they will not get it.

Interviewer: What about writing, do they have difficulties?

Respondent: Yes, some of them have

Interviewer: Thank you. Can you please describe to me how they exhibit their difficulties in the specific academic areas?

Respondent: Oh yes. Especially when it comes to maths, reading, and writing, some of the children have lot of issues. As for maths, their problem is with take away, sharing of numbers, and quantity. It's like they get confused. Reading too, they cannot blend the sounds and as for writing, it's not good at all. They will mix the upper case and lower case letters together. Some too will write from left to the right.

Interviewer: Okay, let's take it one after the other. So how do you identify children with reading difficulties?

Respondent: Oooh, I can say that ermm I write a sentence on the board and I ask them to read one after the other. Some of them cannot pronounce

the words correctly, some too can pronounce the first letter but cannot blend the letter sounds. So that's how I know their challenges.

Interviewer: Can you please tell me the steps you have taken to address the difficulties children have in reading?

Respondent: Oh yes, I do a lot. I give them separate reading like simple sentence. Sometimes too, I write the words they cannot say from the board in their books for them to read it because maybe they cannot see it well on the board.

Interviewer: Okay, now let's look at those with writing difficulties. How do you identify them?

Respondent: I give them their writing book to write and if I find out that the children don't have free hand motor skills or let's they cannot write letters correctly on the lines then it means that they have problem with writing. So through the writing exercise I give, I am able to know.

Interviewer: So please, what have you been doing to help them to improve their writing skills?

Respondent: I give them separate writing assignment to do and I use ruled lines to teach them too. Sometimes too I call them to my table and write for them to see how I'm moving my hands so that they can learn from me like writing in the air and sometimes too we do tracing. I motivate them too so that they will enjoy the learning.

Interviewer: That's nice, what about those with mathematics difficulties, how do you identify them?

Respondent: When we are doing mathematics for example, I observe those who cannot add numbers correctly and if I see that some of the children skip when counting numbers or they get confused. Then it means there is a problem so that will alert me that the children have problems in doing maths.

Interviewer: Oh fine, can you please explain to me how you help those with difficulties in mathematics?

Respondent: For those who cannot count properly, personally, I take my time to count the bottle tops for them and I...ask them to look at the way I separate the counters when counting. I give them lot of counting tasks

to do so that they will get familiar with it. I also teach them how to add the numbers by doing it together with them.

Interviewer: Have you encountered situation where you have done everything you can but the children are not improving?

Respondents: Oh yes paaa

Interviewer: So please when it happens like that what do you do?

Respondent: Ooh, I report it to the headteacher. We also invite the parents and tell them the problems their children have.

Interviewer: What about resource teachers, do you seek their assistance?

Respondent: No please, we don't have resource teachers here in our school.

Interviewer: What about other place apart from your school?

Respondent: Oh no. Personally, I don't know anyone.

Interviewer: Do you ask for help from any resource centre?

Respondent: We don't have resource centre in the school and I don't even know any for basic schools in Cape Coast or maybe only the one in UCC.

Interviewer: Oh okay. Pease, what are your reasons for seeking further assistance from other professionals to find out the extent of children's difficulties?

Respondent: Oooh like I said earlier as for the children who have learning problems we do our best to help them but let's say if someone has eye problem or like hearing problem that one we cannot do anything about it so I advise the parents to take them to the hospital. I had one child and it's like when you write home work on the board he alone will copy the wrong thing, so I brought him to the front but still no improvement. So I told the mother to take him to an eye specialist.

Interviewer: What did the mother told you after they went to the hospital?

Respondent: Ooh, I met her one time in town so I asked her and she said when they went to the hospital they gave them eye drop and they said there were sand on the child's eye.

Interviewer: So how is the child doing now?

Respondent: He is fine, he has been promoted to BS 2.

Interviewer: That's nice, now let's talk about how you involve the parents of the children. Do you tell the parents about problems you find about their children?

Respondent: Oh yes, as I said earlier. I always do

Interviewer: Please give me more details on how you involve the parents?

Respondent: Ooh as for those who don't do their homework, I tell their parents that they should assist the children or they can let their elder siblings help them. Sometimes too when I see something about the children, I call the parent on the phone with my own credit and I inform them about it.

Interviewer: That's good. Do you involve the headteacher or your colleague teachers when you are assessing or finding solutions to children's problems in learning?

Respondent: Not always but yes I do sometimes.

Interviewer: Please how do you involve them?

Respondent: We the teachers including the head, we have small committee in the school. When we meet we share ideas on how to go about helping the children. Especially for the head, I inform him when the parents of the children refuse to come to the school or maybe a child has a serious problem let's say with the eye or something.

Interviewer: Okay, now let's talk about the challenges you face. What challenges do you have when identifying children at-risk of learning difficulties?

Respondent: We don't have textbooks for the new curriculum and so we have to use the old one to teach them. Honestly, sometimes I feel frustrated and depressed because I have to buy cardboard and design teaching materials for the children with my own money. Some of the children are not punctual. So it makes the work difficult for us because sometimes we have to repeat the lesson over and over and over.

Interviewer: Oh okay. What about the parents, what difficulties do you face when involving them?

Respondent: I think most of the parents because they have low education, it's like they show no interest in their children's education. I don't blame

them because some of them don't have money but some too they have it but they're just not interested.

Interviewer: Okay, what else?

Respondent: It's like the parents don't have time to support the children. Even some of the children come to school without any food because the parents know that the government is giving the children free food. Hmm it's very sad, some don't even have exercise books so I have to find some old books and give it to them to write.

Interviewer: That's nice of you. When it comes to the resource teachers and resource centres do you have any challenges?

Respondent: Oh yes. As I said earlier, we don't have resource teachers. They are into this disability thing and they can help us but they are not available in our school.

Interviewer: What about the resource centres?

Respondent: As I said earlier, we don't have resource centre here so we teachers have to teach all the children without any support from any one. Sometime when I get home from school, I feel very tired and my head will be aching. Teaching especially these young children is not easy.

Interviewer: Oh okay. So please, based the challenges you face, what suggestions can you give in terms of the availability of resource teachers?

Respondent: The teachers who are into special education like yourself should come and assist us because sometimes we can do all we can but the children will still not be improving.

Interviewer: Okay. So what about the resource centres?

Respondent: I think if the government can build resource centres for every school because if you go to the schools you will find pupils there who have disabilities.

Interviewer: In terms of teaching and learning resources, what recommendation can you offer?

Respondent: We need a well decorated classroom, textbooks, and even ICT laboratory so that teaching and learning will be attractive and enjoyable for the children. Teachers too we shouldn't use only one

method of teaching. We have to be creative in our teaching and be friendly with the children too.

Interviewer: Is that all?

Respondent: Ooh I think if Ghana Education Service can organise workshops for us it will be fine so that we can learn new teaching methods to teach the children.

Interviewer: What about parents' involvement, what suggestion can you offer?

Respondent: I will advise that the parents should assist the children in doing their homework and they should try and buy books for the children to learn. I also think that when we invite them for Parent Association meeting they shouldn't say they are working but they should try and come because it's about their children.

Interviewer: Is there anything you want to add or clarify?

Respondent: Oh no. I think I have said everything I have to say.

Interviewer: Then that brings us to the end of the interview. Thank you very much for your time.

Respondent: You're welcome.

Interviewer: Bye for now.

APPENDIX F: EMERGED THEMES AND SUB-THEMES

Main Themes	Sub-themes
Teachers' understanding of assessment	Meaning of assessment Types of assessment techniques
Teachers' understanding of LDs	Meaning of LDs Types and characteristics of LDs Prevalence of LDs
Teachers' identification of LDs	Through written exercises Through observations
Teachers' remediation efforts	Classroom seating arrangement Differentiated instruction Modelling
Teachers' reasons for making referral	Sight problems Hearing problems
Teachers' collaboration with others	Collaboration with parents Collaboration with headteachers and colleague teachers
Challenges teachers face in assessing children at-risk of LDs	Instructional challenges Challenges in collaborating with parents Challenges in the availability of resource teachers Challenges in the availability of resource centres
Teachers' suggestions on improving assessment of children at-risk of LDs	Provision of training programmes on assessment for LDs Provision of resource teachers Provision of resource centres Provision of teaching and learning resources

APPENDIX G: CODING SCHEME

Main Theme	Sub-Theme	Categories of Codes	Example of Patterns of Response
Teachers' understanding of assessment	Meaning of assessment	Exercise	'When we say assessment, erm it means giving some form of exercise to children to do' **(Teacher 5)**
		Understanding level	'…and from the scores they get, you will know whether the children understood what you taught or not' **(Teacher 3)**.
		Strengths and weaknesses	'…so that we will know their weakness and strength…' **(Teacher 2).**
	Types of assessment techniques	Written Exercise	'I think urmm one is the written one. It's the exercises we give the children after teaching…let's say maths exercise, reading comprehension exercise...' **(Teacher 7)**.
		Observing	'I've been looking at their work. Like the way they write, the way they count numbers with the bottle tops, and the way they behave' **(Teacher 3)**.
Teachers' understanding of LDs	Meaning of LDs	Problems in learning	'Learning difficulties means the problems learners encounter or have in let's say...{Pause}...writing the alphabets, pronouncing words, doing mathematical calculation' **(Teacher 9)**.

	Types and characteristics of LDs	Reading difficulty	'They cannot pronounce the words correctly. They will skip the word because they cannot pronounce it' **(Teacher 5).**
		Mathematics difficulty	'When they are counting bottle tops, they don't separate them' **(Teacher 5).**
		Writing difficulty	'Some of them too will not space out when writing. They will write everything together' **(Teacher 5)**.
	Prevalence of LDs	Prevalence regarding types of LDs	'When I look at all the difficulties, reading is their biggest challenge here' **(Teacher 1)**.
		Prevalence regarding gender ratio	'I have ermm three children with learning difficulty. They are two boys and one girl' **(Teacher 11)**.
Teachers' identification of LDs	Through written exercises	Writing in exercise book	'The way some of the children write in their work book alone will make you know they have learning problem...they will be mixing the letters and turning them left and right and up and down' **(Teacher 14)**.
	Through observations	Looking at behaviour	'As they are here, we look at them...{Pause}...maybe ermm from the way they talk and like the way they behave we can see whether they have learning problems or not' **(Teacher 4)**.

Teachers' remediation efforts	Classroom seating arrangements	Moving to different seats	'If I see that their seating position is not helping them to see what's on the board because of the sun rays, I move them to sit at where they can see' **(Teacher 2)**.
	Differentiated instruction	Separate work	'I give them separate work. Maybe they will trace letters because they cannot do what the rest are doing' **(Teacher 7)**.
	Modelling	Demonstrating the skill	'I write for them to see the position and movement of my wrist and the pencil' **(Teacher 14)**.
Teachers' reasons for making referral	Sight problems	Difficulty in seeing	'The girl's eyes were always red and always, she will be robbing the eyes. So I asked the mother to take her to UCC eye clinic' **(Teacher 15)**.
	Hearing problems	Difficulty in hearing	'When you're standing far and you talk to her she can't hear unless you get close to her...I asked the mother to check up at the hospital' **(Teacher 12).**
Teachers' collaboration with others	Collaboration with parents	Involvement of parents	'I used to call the parents personally with my phone to inform them about their ward's performance in school **(Teacher 10)**.
		Involvement of headteachers	'In extreme cases, I inform the head about it... He gives me some ideas' **(Teacher 6)**.

	Collaboration with headteachers and colleague teachers	Involvement of colleague teachers	'We the teachers, we have small committee in the school. When we meet, we share ideas on how to go about helping the children' **(Teacher 8)**.
Challenges teachers face in assessing children at-risk of LDs	Instructional challenges	Overloaded syllabus and curriculum	'Personally, I think that the new curriculum is loaded with lot of things so the children cannot understand all the content' **(Teacher 11)**.
		Absenteeism	'Some of the children are not punctual. So it makes the work difficult for us because sometimes we have to repeat the lesson over and over and over' **(Teacher 8)**.
		Inadequate teaching and learning resources	'We do ICT as a subject and even they said we should make use of technology and internet in teaching the children but ask yourself where are they' **(Teacher 12)**.
	Challenges in collaborating with parents	Parents' low educational level	'Some parents too when you ask them to buy books for their children they will be fighting with you that erh the government said they shouldn't buy anything' **(Teacher 16)**.
		Parental irresponsiveness	'Some of the children will come to school without doing their homework. The parents don't watch the children to do it' **(Teacher 4)**.

	Challenges in the availability of resource teachers	Need for resource teachers	'I know the centre at UCC have teachers who are expert in handling them but they are not enough for all the basic schools in Cape Coast' **(Teacher 13)**.
	Challenges in the availability of resource centres	Need for resource centres	'Here, we don't have resource room and that is another problem because the children will be promoted to the next class without learning somethings' **(Teacher 3).**
Teachers' suggestions on improving assessment of children at-risk of LDs	Provision of training programmes on assessment for LDs	Training programmes	'My suggestion is that because we the teachers we don't have much idea about how to handle special children. The government should organise training for us' **(Teacher 2)**.
	Provision of resource teachers	Providing special education teachers	'I think as for the resource teachers like those who are specialist in special education, they know this disability things so we need them in our schools' **(Teacher 14)**.
	Provision of resource centres	Providing resource centres	'Every basic school should have a resource centre or even if there is errm enough of it in Cape Coast that will help paa' **(Teacher 6)**.
	Provision of teaching and learning resources	Provision of teaching and learning materials, equipment and facilities.	'I wish the government can provide every school with beautiful materials for learning… laptops, projectors erhh and ICT centre so that we can take the children there to learn' **(Teacher 10)**.