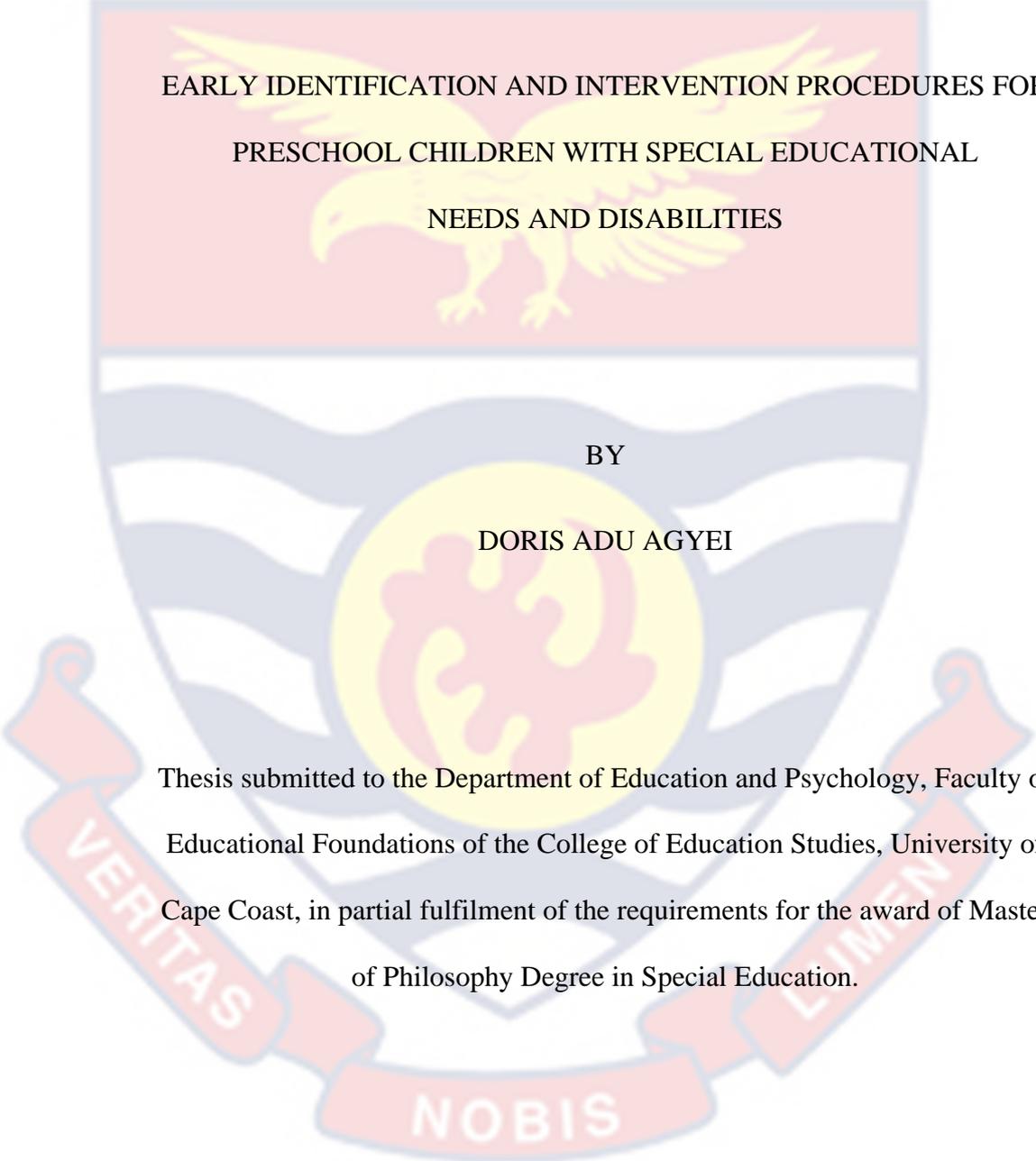


UNIVERSITY OF CAPE COAST



EARLY IDENTIFICATION AND INTERVENTION PROCEDURES FOR
PRESCHOOL CHILDREN WITH SPECIAL EDUCATIONAL
NEEDS AND DISABILITIES

BY

DORIS ADU AGYEI

Thesis submitted to the Department of Education and Psychology, Faculty of Educational Foundations of the 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.

MAY 2023



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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.....

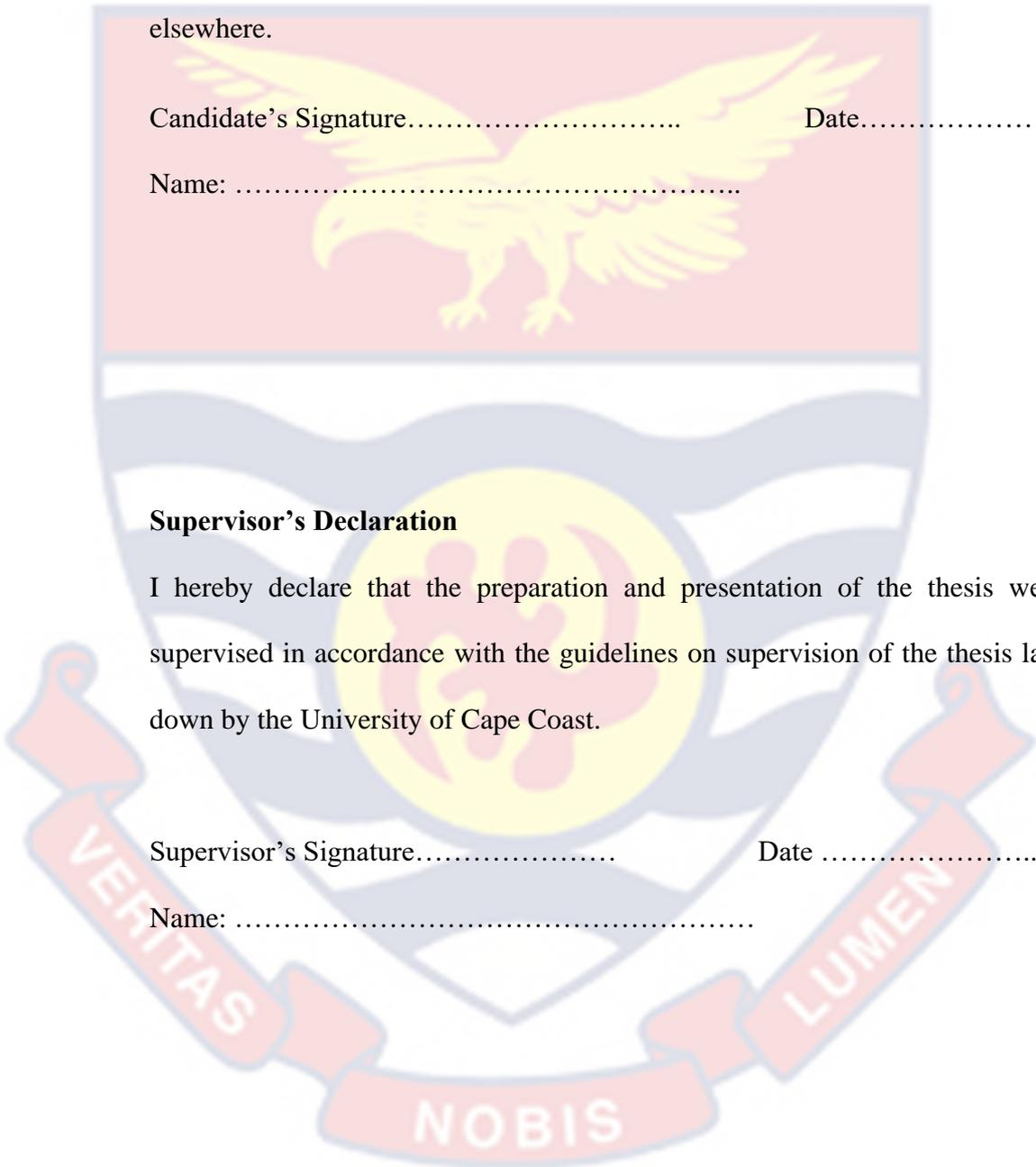
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Supervisor's Declaration

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

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Name:



ABSTRACT

For children with special educational needs and disability (SEND) to benefit from education, there should be procedures available whereby teachers, caregivers and parents can use to determine the needs of the child. However, it appears that in Ghana and particularly in the Komenda Edina Eguafu Abirem (KEEA) Municipality in the Central Region of Ghana, the needs of children with SEND are taken for granted. The study therefore explored the procedures used by preschool teachers in early identification and intervention (EII) for children with SEND in preschools in the KEEA Municipality. The study employed a multiple method research design. The sample size for the study was 168 teachers and 57 parents. Twelve teachers who teach children with SEND and 12 parents were conveniently selected for the qualitative phase. Also, purposive sampling technique was used to sample parents whose children were suspected to have or were diagnosed of disabilities. Questionnaire and interview guide were used for quantitative and qualitative data, respectively. Quantitative data was analysed using mean and standard deviation whereas qualitative data were analysed using thematic approach. It was found that preschool teachers in the KEEA district have adequate knowledge of early identification and intervention for children with SEND. Also, it came to light that, the teachers relied mostly on observation and checklist as a technique in identifying children with special educational needs. They also used collaboration and communication, and accommodation and adaptation during the intervention process. It was also revealed that parents were actively involved in the early identification and intervention process. Amongst the recommendations was that the Pre-school teachers should continue to enhance their knowledge in identifying children with special educational needs and disabilities.

KEY WORDS

Early Identification

Early Intervention

Parents

Preschool Teachers

Special Educational Needs and Disabilities



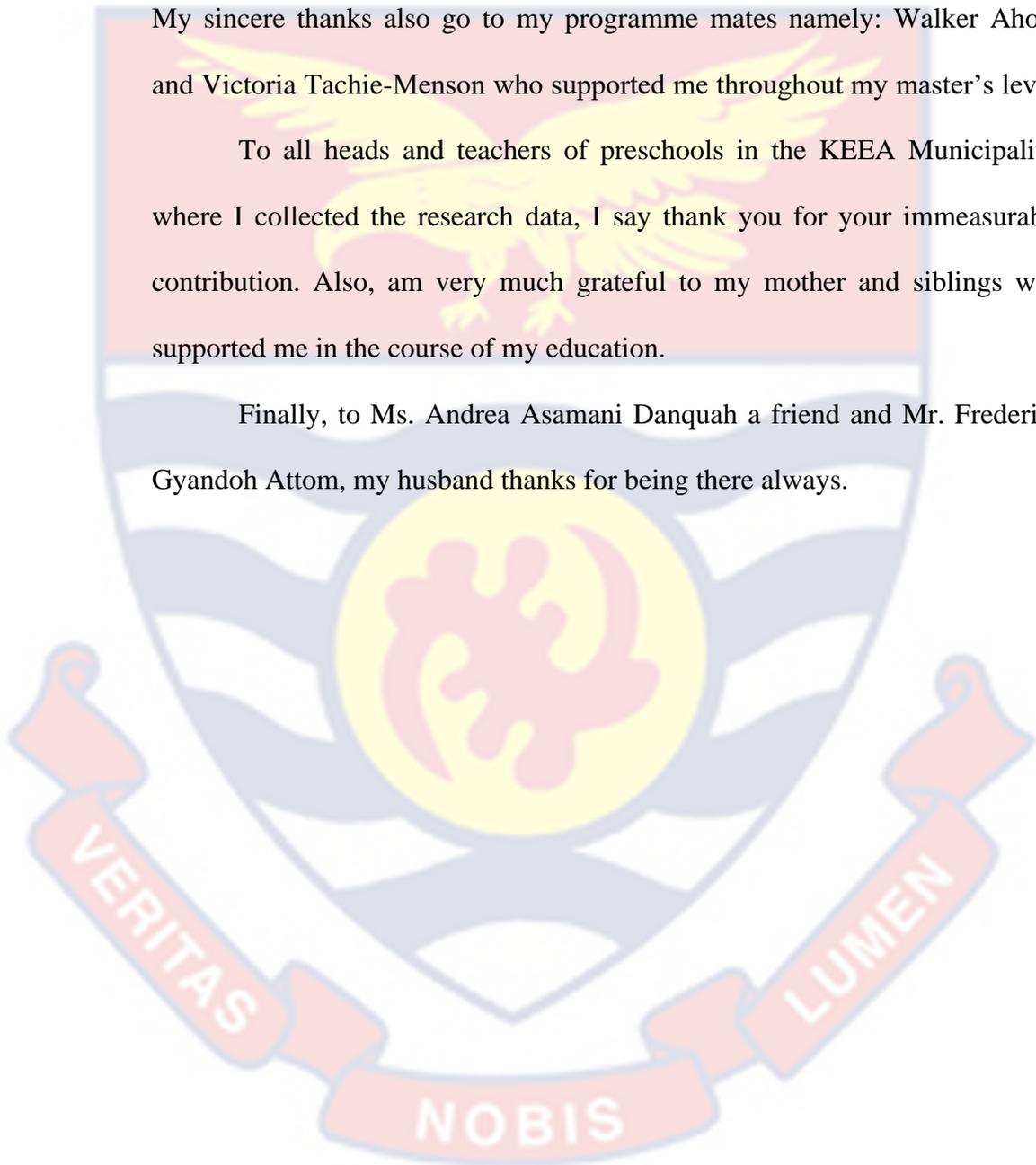
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DEDICATION

To my husband Frederick G. Attom and daughter Fredella A. Okyere-Attom



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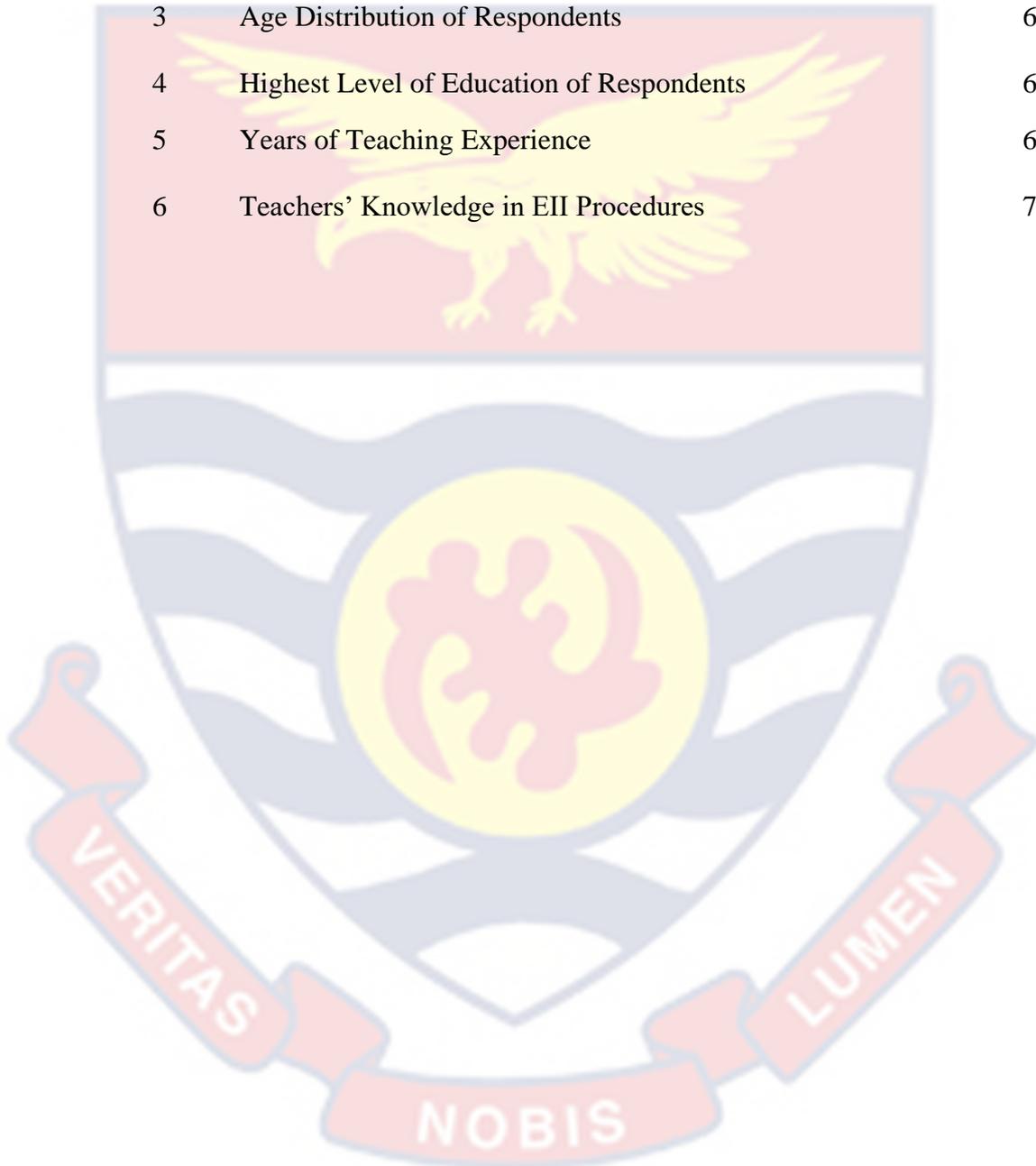
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CHAPTER ONE

INTRODUCTION

Background to the Study

The early childhood stage is one of the most critical periods in human development and growth. The first five years of a child's life is the developmental stage which prepares him or her for future success, as such, the prior experiences of their life affect their development (Bari, Abdullah, Abdullah, & Yasin, 2016). Any defect that affects the child at this stage that is not attended to is most likely to affect the rest of his or her life. Early Identification and Intervention (EII) of children with Special Educational Needs and Disabilities (SEND) has been an important aspect of special education. Professionals in the field of medicine, education, psychology, and a host of others have always emphasized the critical nature of a child's learning between birth to five years. These years become more critical if there is any form of disability (Lerner, Lowenthal, & Egan, 2003).

According to Williams (2006), there exists a high level of inequalities in the world in the areas of education, health, and social adjustment. These have caused an increased interest among people in many countries to find the causes of these huge inequalities in society. Williams was of the belief that the foundational cause of these inequalities is rooted in the early childhood stage of human development. A number of challenges affect children's development, progress at school and their social interactions with peers, yet in most societies, these challenges go unidentified without intervention. These disabling conditions may present behavioural, attentional or language difficulties in the child (Williams, 2006).

Research in many parts of the world reveals that, some children at school-age have some forms of disabilities. In Australia for instance, data from the Australian population survey indicated that about 12% of children were identified to have teacher-rated difficulties related to developmental disabilities at school entry (Sayers, Mithen, Knight, Camm, & Goldfeld, 2011). Data from the United State of America (USA) and United Kingdom (UK) also shows that a number of children are identified by parents and teachers to have some forms of disabilities at school entry (Oberklaid, Baird, Blair, Melhuish, & Hall, 2013). Oberklaid et al. opined that most children of school-age arrive at school with developmental and behavioural problems which have an adverse effect on the academic and social interactions and can have a life time consequence on them.

Ways that might make a difference is by including family support, quality early childhood education, early identification of emerging problems and giving of proper interventions (Oberklaid et al., 2013). If a child should benefit from education, then there should be a laid down procedure available for care givers and parents to use to determine the needs of the child. The large number of children with disabilities seen globally places a responsibility on governments, parents and preschool teachers to do intensive early identification and interventions (EII) at the early childhood stage.

In most developed countries, early detection and intervention of developmental disabilities is effective because, it is made an integral part of their health delivery system (Davis & Tsiantis, 2005). However, in low- and middle-income countries, the lack of monitoring and unavailability of

appropriate instruments for screening and detection are among major barriers to effective EII (Engle et al., 2007; Sonnander, 2000).

The purpose of doing early identification for children with SEND is to give early intervention. Early intervention (EI) has been defined “as a systematic and planned effort to promote development through a series of manipulations of environmental or experiential factors, initiated during the first five years of life” (WHO, 2012, p.68). According to Meisels and Shonkoff (1990), EI involves a multidisciplinary service provided by a team of professionals for children who are developmentally vulnerable ranging from birth to age five (5) years. The services are also extended to their families. Generally, services in EI are structured to meet the needs of children who have a delay in cognitive, emotional, or adaptive, physical, communicative, social development or have a diagnosed condition that has a high probability as a result of delay in development (WHO, 2012).

Early intervention programmes for special education students are the process of supplying the service, support, education of various stimulation techniques lessons, activities and training to students with special educational needs who suffer from physical or mental developmental delay, which will affect the development and learning (Ministry of Education in 2013 cited in Bari, et al., 2016). Early intervention is also about recognising the child’s difficulties quickly, identifying and making a prompt intervention to support children and their families so that issues are tackled before they become more ingrained problems (Mckeown, 2016). The children have to be comprehensively assessed to establish a diagnosis and ascertain their level of

functioning, in order to determine their needs for additional support and services and to enable them to obtain such services.

Early identification and intervention are very important because it helps minimise the long-term incapacitation and challenges the children with disabilities will have in the future, prevents further occurrence of disabilities, and also enables them to receive mainstream education (Bari et al., 2016). Early identification can lead to early intervention or prompt treatment. Prompt treatment can reduce the severity of the problem and can prevent the problem from affecting other areas of development. A study conducted by Vellutino, Scanlon, Small, and Fanuele (2006) in investigating the effect of implementing early identification and intervention to some children identified as being potentially at risk for reading failure, in selected kindergarten schools in New York, results from the study indicated that early identification and intervention improves early skills and prepares the children identified as dyslexic for formal reading instructions.

Parental involvement is very crucial in early identification and intervention. Parents' primary role in early identification and intervention is to ensure that they secure early identification and intervention services for their children. When parental involvement is high, it enhances the child's self-esteem, motivation and improve classroom (Crombie & Reid, 2012). Children with special education needs who do not have access to community-based assessment and intervention centres may rely on school-based services (Bruhn, Woods-Groves, & Huddle, 2014). A study by Adelman and Taylor (2012) found that an estimated figure of 50% of children at risk in urban schools, may need significant professional early identification and intervention support

services. For children with mental and behavioural health challenges, another study by von der Embse, Rutherford, Mankin, and Jenkins (2018) estimated it to be 75% of students. Due to unavailability of these professionals, early identification and intervention services, most urban schools rely on school-based initiatives mostly done by teachers (Von Der Embse, Kilgus, Eklund, Ake, & Levi-Neilsen, 2018). However, Von Der Embse et al. have identified some challenges in the identification methods used by teachers which are mostly reactive in nature. These may include subject to various biases and perceptions of teachability of certain types of students (Gerber & Semmel, 1984), often resulting in over identification of certain student subgroups or behaviours (e.g., minority of children with externalizing behaviour problems (Skiba, Michael, Nardo, & Peterson, 2002) and under identification of others (e.g., internalizing problems) (Kahlberg, Lane, Driscoll, & Wehby, 2011).

Universal screening represents a proactive alternative that may enable the identification of early symptoms indicative of later severe mental and behavioural health risk (Kamphaus, 2012). Teachers play a crucial role in identifying risk as part of universal screening procedures to facilitate subsequent early intervention supports (Von Der Embse et al., 2018). There is a growing literature base supporting teacher influences on student emotional and behavioural outcomes (Lynn, McKay, & Atkins, 2003). Given the total time spent in the classroom with students, teachers are in a vital position to detect and provide support for students experiencing mental health problems associated with disabilities (Johnson, Eva, Johnson, & Walker, 2011).

The Salamanca statement of framework for inclusive education (UNESCO, 1994) held at Spain in June 1994 declared that all children regardless of their disabilities be educated in an inclusive school. These include children with SEND who are below the ages of five years. Inclusive education is defined as a process aimed to respond to diversity of students by reducing exemptions within and from education and rather increasing the participation of students (Nguyet, 2010). The policy of inclusive education lies on the value system which holds that all persons go to an educational institution deserve equitable or equal access to quality teaching and learning. The inclusive education policies emphasised that, the varying needs of every student including their learning style and rate of learning must be accommodated. Teaching and learning materials, the curriculum, teaching strategies, school environment and a host of other things must be modified to suit the needs of every child in the school (UNESCO, 1994). There is the need therefore for researchers to find out the procedures teachers in mainstream schools use to identify children with SEND and the educational interventions they give to these children.

In this study, I will look at a broad-based and multidisciplinary approach to how early identification and intervention is done for children with SEND at the early childhood stage at preschools in the Komenda-Edina Eguafo Abiriem (KEEA) Municipality in the Central Region of Ghana.

Statement of the Problem

The importance of early childhood education has been greatly acknowledged by major stakeholders in education (Cutter-Mackenzie & Edwards, 2006). If a child with SEND can benefit from education, then there

should be procedures available which teachers, caregivers and parents can use to determine the needs of the child. Most of these children may be having SEND which may not be identified by parents and care givers. Therefore, the early childhood teacher who also spends most time with these children at school should be able to identify and give the needed educational interventions to these children. If the needs of the child are identified early enough, it facilitates the kind of services and intervention that could be given to him or her. These children require a high level of intensive intervention that involves quality early identification and intervention methods and procedures enable them grow and to enhance their success in school and ensure they are not left behind their peers (Coyne, Kame'enui, Simmons, & Harn, 2011). However, EII programme for children with disability in Ghana is less clear in practice, and it appears that there is no existing documentation that explains how the implementation should be done and no clear guidelines for early identification and intervention procedures.

In other jurisdictions, such as the USA and UK, there are procedures that can be used to facilitate early identification of needs. However, it appears that in Ghana and particularly in the KEEA Municipality, the needs of children with special educational needs and disabilities (SEND) are taken for granted. This is because the caregivers and/or parents appear to lack the skills to identify and give proper intervention to them. According to NurAishah and Safani (2014), lack of skills and knowledge in conducting early intervention by teachers may lead to a failure in early identification and intervention programmes. This has necessitated the researcher to investigate the procedures teachers and parents use in EII for children with special educational needs and

disabilities (SEND) in preschools in the KEEA Municipality, its implications for inclusive education in Ghana.

Purpose of the Study

The purpose of this study is to explore the procedures used by preschool teachers in EII for children with SEND in preschools in the KEEA Municipality. Specifically, the study sought to:

1. Assess the level of preschool teachers' knowledge in the identification and intervention procedures of children with SEND in the KEEA Municipality.
2. Explore the steps preschools teachers use in identifying children with SEND in the KEEA Municipality.
3. Explore the steps involved in the early educational interventions given to children with SEND in the KEEA Municipality.
4. Assess the level of parental involvement in the identification and intervention process of children with SEND in the KEEA Municipality.

Research Questions

The following research questions were stated to guide the study

1. What is the level of knowledge preschool teachers in the identification and intervention procedures of children with special educational needs and disabilities in the KEEA Municipality?
2. What steps do preschool teachers use in identifying children with special educational needs and disabilities in the KEEA Municipality?

3. What steps are involved in the early educational interventions given to children with special educational needs and disabilities in the KEEA Municipality?
4. What is the level of parental involvement in the identification and intervention process of children with special educational needs and disabilities in the KEEA Municipality?

Significance of the Study

It is anticipated that, the findings of this study would reveal the appropriate procedures early childhood teachers would use to identify and give intervention to children with SEND in the KEEA Municipality. The result of the study would contribute to the advancement of research methodology in the area of early identification and intervention for preschool children with SEND. By using innovative research methods or by comparing and contrasting different methodologies, the thesis can help to improve the quality of research in this area and inform future research efforts. It would help to clarify the underlying mechanisms and principles that guide effective identification and intervention procedures and inform future theories in this area. The study would have practical implications for policies related to the education and support of preschool children with SEND in Ghana. By examining the effectiveness of different identification and intervention procedures. This can also help to ensure that resources are being allocated effectively and efficiently by the Ghana Education Service to meet the needs of children with SEND in the KEEA Municipality.

The findings would further have direct implications for the practice of early identification and intervention for preschool children with SEND and

also inform the development of evidence-based practices that are tailored to the specific needs of these children and improve the quality of support they receive. Finally, the study would contribute to the existing body of knowledge by testing, refining, or developing theories related to the identification and intervention of preschool children with SEND.

Delimitation of the Study

This study was restricted to some selected private and public early childhood centres or pre-schools in the KEEA Municipality in the Central Region of Ghana. The study was delimited to teachers in the nursery and kindergarten and some selected parents of learners with SEND who were between the ages of two and five. This is because children in nursery and kindergarten are in their formative years and thus is the period where deviations in behaviour begin to manifest. Exemption was given to preschool teachers who were teaching children below the age of two and those above the age of five since the focus of the study was only on preschool children with SEND who were from the ages of two to five.

Limitations

A major limitation of this study was the unwillingness of some parents to participate in the study during the data collection period. This was associated with the tight schedule of some parents. Also, due to the outbreak of the corona virus pandemic getting physical access to participants on time was a challenge. This could not allow me to interview all of my participants especially two parents of a child. On the part of teachers, the workload on preschool teachers coupled with higher task of classroom management, time to respond to the data collection instrument was a major challenge. Some schools

in the KEEA Municipality are in very remote villages and transportation to those villages was also a challenge. Again, because this is qualitative study, the views, beliefs and personal opinions of the researcher is a threat that can influence his interpretation and analysis of the results. I was very cautious and objective in the analysis and interpretation of the results in order to ensure that the results presented are in their purest form, unadulterated or influence by my personal views.

Organisation of the Study

The study is organised into five chapters. Chapter One covered the background to the study, statement of the problem, research questions, significance of the study, delimitation, and limitations of the study. Chapter Two dealt with the review of the related literature as well as the theoretical, empirical and conceptual framework of the study. Chapter Three covered the research methodology, while Chapter Four dealt with analysis and discussion of the data gathered. Lastly, Chapter Five covered the summary of the findings, conclusions, and recommendations.

CHAPTER TWO

LITERATURE REVIEW

Introduction

This study looks at exploring early identification and intervention procedures for children with special educational needs and disabilities. As stated in the previous chapter, the objectives that guide the study include teachers' knowledge in the identification and intervention procedures of children with special educational needs and disabilities (SEND), procedures involved in the early educational interventions given to children with SEND and level of parental involvement in the identification and intervention process to children with SEND. The previous chapter dealt with the background of the study, research problem and justification of how necessary it is for the study. Moreover, this chapter reviewed literatures that are relevant to the study. The review encompasses;

1. Theoretical Review

- a. Unified theory of practice in early intervention (Brookes-Gunn, Berlin & Fuligini, 2000).
- b. Socio-ecological theory (Bronfenbrenner, 1979).

2. Conceptual Review

- a. Children with special educational needs and disabilities (SEND)
- b. Inclusive education
- c. Early identification
- d. Early intervention

3. Empirical Review

- a. Teachers' knowledge in identification and intervention of children with SEND.
- b. Steps involved in early identification of children with SEND.
- c. Steps involved in early educational interventions given to children with SEND.
- d. Level of parental involvement in the identification and intervention process

Theoretical Review

This section of the review encompasses the various theoretical perspectives that underpin the study. The theories that underlie this study are; unified theory of practice in early intervention (Brookes-Gunn, Berlin & Fulgini, 2000) and the ecological theory (Bronfenbrenner, 1979).

Unified theory of practice in early intervention

This theory finds its grounds in a larger theoretical framework based on the unified theory of practice in early intervention (UTPEI) by Brookes-Gunn, Berlin and Fulgini (2000). UTPEI is also referred by others as the theory of change and it is the evidence of a paradigm shift from set of practices based on single theoretical perspectives; for example, behavioural and cognitive, to a theory of practice (Odom & Wolery, 2003). UTPEI is established as common beliefs or shared examples among practitioners and academics with each having a grounded body of knowledge and commonly shared values for their foundations. This theory of practice is referred to as unified theory of early intervention practice because of its roots from diverse psychological and educational theories (Odom & Wolery, 2003). The shared

beliefs constitute the tenets embedded in this theory of practice. The tenets of the unified theory of early intervention practice include; families and homes as primary nurturing contexts, strengthening relationships as essential feature of early intervention, children learn through acting and observing their environment, adults mediate children's experiences to promote learning, children's participation in more developmentally advanced settings, at times with assistance, is necessary for successful and independent participation in those settings, EI practice is individually and dynamically goal oriented. The following discussion will explain in details the various tenets of the theory of practice.

Families and homes as primary nurturing contexts

Brookes-Gunn et al. (2000) opined that to achieve a long-term success of intervention programmes depends on the capacity to directly change a child's development, as well as the capacity to change the environment the child lives in, especially with respect to the functions of parents and family. Families and homes are basic assumptions in early intervention practice as primary fosterage environments for young children with disabilities, except in situations where abuse and neglect occur (Odom & Wolery, 2003). This supposes that it is more likely for children with disabilities who live with their families to be similar to their siblings and peers in the same age bracket than if they are in facilities where only individuals with disabilities live. According to Dunst et al. (2001) the implications of this principle transcend just residency, it applies to community activities as well.

Dunst et al. (2000) proposed that the primary force that has the capacity to influence children in early childhood is the family, and the home

also serves as the fundamental environment for learning. Dunst et al further indicated that the home should not be conceived as just a place, rather as a setting that constitutes everyday family activities. Cook et al. (1996) supported the above proposition by stating that opportunities that occur in their natural state in the home give children the chance to learn to access the environment, make choices and decisions and act on their own accord.

Cook et al (1996) and Weigel-Garrey et al (1998) opined the relevance of families as the centre for developing self-determination in early childhood. This assertion was affirmed by Brotherson et al (2008) that families play a crucial role in providing, keeping, and controlling the options and choices of children for self-determination.

Strengthening relationships as an essential feature

A major feature of early intervention is establishing positive relationships among parents/caregivers, young children with disabilities, their peers, professionals working with the child with disability and family. Some of the early intervention programmes employ relationship-based intervention, with the aim of establishing positive relationships in the early life of the child (McCullum & Hemmeter, 1999). Malekpour (2007) emphasized that the early relationship between caregivers and children serve as external factors for the child's internal control.

Early intervention programmes also consider relationships among peers. Odom and Wolery (2003) suggested that establishing positive peer relationships among young children is a crucial developmental task which is dependent on social competence. Some children with disabilities have had challenges with social competence (McConnell & Odom, 1999). Inclusive

schooling may encourage peer-related social competence and relationships. However, some young children with disabilities may be well accepted by their peers while others may be rejected (Odom, Zercher, Li, Marquart, & Sandall, 2003). In situations where children with disabilities are actively rejected by their peers, Brown, Odom and Conroy (2001) indicated that naturalistic approaches, social integration activities, and explicit social skills training as evidence-based interventions have been employed.

According to Seligman and Csikszentmihalyi (2000) and Siklos and Kerns (2006), recent understanding in the fields such as developmental disability service provision and psychology among others have made professionals appreciate the importance of families in the process of child development and also realized the significance of external environment. Early intervention practices are multidisciplinary nature that may require collaboration among professionals, caregivers and parent (Odom & Wolery, 2003). Lieber et al. (2001) suggested some of the barriers to include poor communication, lack of respect, lack of time for planning and/or philosophic differences. Despite the possible barriers, research has established that professionals in the early intervention practice prefer to work in a collaborative manner (Buysse et al. 1994).

Factors affecting how children learn

Many factors such as the genetic make-up, status of central nervous system, health and physiological functioning, and risk and opportunity variables in families and communities contribute to children's learning and development (Odom & Wolery, 2003). Odom and Wolery further point out the current growth in the potency of close environments and experiences children

derive in shaping their own learning and development. Sameroff and Fiese (2000) indicated that children's learning was once perceived as depending on biological maturation and environmental influence, however, recent perspectives have shown that children actively adapt to, learn about, master, control and regulate their own world. Thus, the experiences they acquire, the interactions they have with the social and physical environment are the opportunities they learn from (Dunst et al. 2000). Odom et al (2000) added that children engage in activities and events and use materials which they have interest in. Landry et al. (2001) alluded to contingently responsive toys, physical environment and social interactions as a positive force. Dunst et al (2000) explained that children engaging in activities they have interest in enhances competence and mastery which in turn creates additional interests. This account makes paying attention to the interest of the child and child-initiated interactions very important. Wolery (2000) concluded that it is essential to promote children's engagement.

Role of Adults in children's learning

In the practice of early intervention, it is crucial for adults (parents, caregivers, professionals) to mediate children's experience to promote learning. Odom and Wolery (2003) explained the term "mediate" as a difference between teacher's actions and common perception of terms such as teach and instruct. Thus, the adult makes a pre-planned set of tasks in a relatively restricted context. An effective mediating process requires planning, goal oriented, and systematically practiced. Horn et al (2000) and Losardo and Bricker (1994) suggested mediating interventions for young children should be used during play and other activities, cut across the activities, and occur

when it has relevance in the environment. According to Wolery (2000) learning is enhanced when the social and physical aspects of the environment are well structured and special intervention practices are used.

When the environment is well structured, there is the tendency to promote engagement, communication, interaction or play. Possible structuring of the environment may include choosing materials based on the preference of the children, rotating materials inside and outside of the play areas, and providing opportunities for children to choose their toys or materials for engagement (McWilliams et al. 2001).

Importance of Participation

Participation in more advanced settings in early intervention practice is essential. The phenomenon of children participating in more advanced settings is supported by literature in situated cognition (Rogoff et al., 1995) and legitimate peripheral participation (Lave & Wenger, 1991). The situated cognition and legitimate peripheral participation perspectives posit that children gain important skills for certain specific context when they participate in the context, with the guidance of a caregiver (Odom & Wolery, 2003). Rencic et al., (2020) explained situated cognition as the reasoning that emerges as a result of interaction between the clinician and the situational (environmental) factors and foresee an opportunity to acquire in-depth understanding into the assessment of clinical reasoning performance through the interactions observed. Holmboe and Durning (2014) explained clinical reasoning as the steps in cognition that guide and establish the diagnosis and or treatment of a patient. In essence, the caregiver's interaction with the

context within which the child participates will help the caregiver identify certain reasonable steps for identification and intervention for the child.

Early Intervention Practices

Early intervention practice is by nature individually oriented. Empirical evidence suggests that intervention efforts that are focused on individual strengths, interest and developing skills of children with disabilities will highly contribute to the success of early intervention services (Pretti- Frontczak & Bricker, 2004). Rakap (2015) viewed individualised education programmes as the pathways through which individualised services are provided for the child with special needs. Wolery (2000) suggested that a strongly held value-based principle in early intervention practice is that caregivers must lay down individualized goals for children and devise strategies that help them meet those goals.

Moreover, aside the individual differences the children may present, the home and family environment of children are different. In view of this phenomenon, Trivette and Dunst (2000) suggested that using a “one size fits all” approach to engage families of children with disabilities will be ineffective and inappropriate for the practice of early intervention.

Application of the Unified theory of early intervention practice

The unified theory of early intervention practice has been identified as a paradigm shift from a unitary theoretical concept to encapsulating a number of bodies of knowledge. The theory acknowledges the perspectives of the nurturing environment of the family and home, fostering relationships between practitioners/caregivers and children with special needs and disabilities. Also, it looks at active learning through observing and acting in the environment,

adults' mediation/assistance to children with special needs and disabilities to enhance their learning. Lastly, performance in certain specific environments and the nature of individual orientation of provision of intervention to children with special needs and disabilities. This theory in its application suggests an individualised planned goal for the intervention. Children with special needs and disability differ in a number of ways; even the severity of the disability. A one size fit all intervention will not be appropriate for children diagnosed in the same category. Furthermore, the theory recognises the influence of a nurturing ambience that families, caregivers and the home produce in the intervention procedure. In addition to the availability of a nurturing ambience, exposing children to a more advanced setting with the guidance/assistance of adults/caregivers enhances children's learning.

Socio-ecological theory (Bronfenbrenner, 1979)

The ecological theory which was propounded by Urie Bronfenbrenner in the 1970s holds a central view that individuals are consistently influenced by their environment. The ecological theory has been renamed as the bioecological theory (Harkonen, 2001; Rosa & Tudge, 2013). The ecological theory views human development from the perspective of the environment, since Bronfenbrenner viewed human development as dependent on the interaction of individuals and the environment (Rosa & Tudge, 2013). Rosa and Tudge further stated that the ecological theory acknowledges and draws the attention of researchers to study the role the environment in which a child spends time and the interactions with other people in the same environment, the personal characteristics of the child and both the development that occurs

over time and the historical time that these children live and the processes that enhance development play in the development of a child.

Trepanier (2005) acknowledged the influence of ecological theory on special education through inspiring research and intervention. The ecological theory to special education places emphasis on the necessity to understand the conditions in the environment which include the people in the environment and their interaction with the child in a learning environment (Trepanier, 2005).

Ruppar, Allcock and Gonier-Gerdin (2017) argued that disability is not about the child, however, the environment the child is in can be a disabling agent. For example, in schools, children could be disabled by infrastructure or curriculum that does not support their learning. Bronfenbrenner (1979) argued that individual's interaction with social structures could have impact on them. Moreover, individuals are situated in different environments; they interact with the environment which shapes their experiences, opportunities and identity. Thus, ecological theory explains how educational or social structures affect the outcomes of students. Furthermore, ecological theory acknowledges the influence of teachers (Agran et al., 2002; Dymond et al., 2007; Ruppar, Gaffney, & Dymond, 2015; Timberlake, 2014), families (Spann et al., 2003), and policy (Ruppar, 2017) as the various overlapping social systems that impact students' access to general educational context and content. Ecological theory recognizes students as the central factor and acknowledges the impact of overlapping and interrelated factors on their access to general education context and content.

Application of the ecological theory

The ecological theory by its definition and its application is centred on the influence of the environment. The theory acknowledges that children's development is to some extent dependent on the environment. Thus, the development of a child with SEND is influenced by the environment. The child's interactions with people and objects in the environment have the potency of shaping the perspective of the student. As indicated by Ruppert et al., (2017) disability is not about the child, but certain conditions in the environment that render the child disabled. For example, the ability to have access and utilize certain facilities can be a challenge due to the environment in which these facilities are located. In the application of the ecological theory to intervention provided for children with special needs and disabilities, the environment should be altered to suit the abilities of children with special needs and disabilities to forestall a situation of rendering them disabled.

Conceptual Review

The conceptual review brings light to the various concepts that are considered in the study. It will look at definitional issues, explanations, characteristics, steps involved in identification and intervention, importance and some challenges in early identification and intervention.

Children with special educational needs and disabilities (SEND)

Van der Veen et al., (2010) stated that there is no clear definition for special educational needs and disabilities. It has been found by researchers that an objective definition that is based on the child's level of achievement and teacher's assessment of whether the child needs extra care overlaps. Pijl, Frostad, and Flem (2008) and Wilson (2002) indicated that children with

special educational needs do not form a clearly defined group. This phenomenon of lack of clarity in identifying students who need specific care has consequences on which student to categorize as a child with special educational needs (Van der Veen et al., 2010). Despite the lack of clarity on a definition for special educational needs, Pijl, Frostad and Flem (2008) defined special educational needs as the various impairments or combination of impairments which presents difficulties for students in participating in education. This definition considered the physiological conditions of the student which may present some challenges in accessing education.

Also, Van Dijk, Verheul and Klompe (2003) explained special educational needs to encapsulate students who need a considerable amount of extra care and attention than other students in a class. Lindsay (2007) pointed out to developmental difficulties affecting; learning, behaviour, emotions and social development, communication, and ability to care for self and independence as characteristics of special educational needs.

Inclusive Education

The definition for inclusive education has been evolving due to the expansion in context and culture of practice. More so, the reflection on the practice keeps deepening. Stubbs (2008) stated that the definition of inclusive education should keep evolving to make inclusive education be a relevant response to addressing challenges in educational human rights. Despite the evolving nature of inclusive education, Florian (2014) was of the view that a clear operational definition of inclusive education seems to be elusive. Hegarty (2001) attributed it to conceptual difficulties in defining inclusive education.

Nonetheless, McLesky et al's (2014) assertion that how inclusive education should be defined lacks agreement. Gal, Schreur and Engel-Yeger (2010) viewed inclusive education as a philosophy where students are accepted and feel belonged in a community where the environment (classroom) is structured to meet the needs of all students. Stubbs (2008), on the other hand, defined inclusive education as a range of strategies, activities and processes that intend to make students realize the universal right to quality, pertinent and appropriate education. Considering the assertion that definition for inclusive education has been evolving and lack agreement, one can cite difference in Gal et al's definition and that of Stubb's. Gal et al's definition considers the arrangement and structuring of the environment to meet the needs of students and feel accepted and belonged. Conversely, Stubbs' definition of inclusive education can be said to be the various functions that make it possible for students to realize their universal right to quality, relevant and appropriate education.

Florian (2014) argued that the components of special educational needs and disabilities as a problem for and a solution to unfairness in education exposes the dilemma of access and equity embedded in education systems that depends on diverse forms of provision and types of learning. Also, Florian (2014) further explained that special educational needs and disabilities is perceived as the mechanism students who have some challenges in learning are either included or excluded from forms of education that are available to children of similar age. To remedy this challenge in special education, people have accepted inclusive education as a replacement to special educational needs and disabilities (Florian, 2014).

Early Identification

The field of learning disabilities/special educational needs has evolved over the years to possess a number of valid measurements which enables practitioners to predict a possible disability in a child which may present difficulties in learning. In other words, early identification of children who may have some difficulties in education such as learning, reading among others has become possible due to the emergence of a number of valid measurements. Early identification of these challenges/developmental disorders is very crucial to the welfare of children and their families (Bright Futures Steering Committee, 2006). Delay in identifying developmental disorders may lead to a surge in the risk of behavioural disorders or certain associated developmental anomalies.

The process of early identification is not found in a single procedure; however, most approaches applied rely on either a single source which includes medical, sociodemographic/developmental screening, or multiple sources which are often arranged in weighted index. Early identification of children with developmental delays/challenges is very important and can be achieved through continuous developmental screening and assessment (Shahshahani et al., 2010). Developmental assessment is by early identification through developmental surveillance and screening, accurate evaluation by using standardized and formal diagnostic tools to evaluate medical, social, family history, and physical examination of a child with special needs challenges (Glascoe, 2008).

Historically, there has been some sort of controversy about the establishment of an acceptable procedure for identification of special

educational needs and disabilities (Vaughn & Fuchs, 2003). At the centre of this controversy is the use of IQ- achievement discrepancy. The IQ-achievement discrepancy is the procedure frequently used to identify the discrepancy between achievement and intellectual abilities in areas such as oral expression, listening comprehension, written comprehension, basic reading skills, reading comprehension, mathematics calculation and mathematics reading (Vaughn & Fuchs, 2003). Stuebing et al. (2002) indicated that the IQ-achievement discrepancy is marked with some measurement and conceptual weaknesses, and that a small number of cognitive or affective characteristics differentiate between poor readers with discrepancies and those without discrepancies. Furthermore, some of the assumptions underlying the IQ-achievement discrepancy cannot be empirically verified (Stanovich & Siegel, 1994). These assumptions include: the magnitude of discrepancy from the IQ which should correspond to the severity of disability, there should be difference between the academic performance of students with discrepancies and students without discrepancies (Gresham, 2002), discrepancies produce reliable information, findings guide instructions (Fletcher et al., 1998). Lastly, the application of the IQ procedure is necessary for identifying students with learning disabilities (Donovan & Cross, 2002).

Response-to-instruction model is another procedure that teachers employ to identify students with disabilities (Vaughn & Fuchs, 2003). Heller, Holtzmanand, and Messick (1982) reported that the response-to-instruction procedure suggests that judging the validity of a special education classification should be based on some criteria. These are: the quality of the

general education should be such that adequate learning will be achieved, the value of special education program should suffice to improve students' performance which will justify the classifications, the assessment process used for identification should be accurate and meaningful. The procedure for identifying special education classification will be deemed valid when these three criteria are met. Heller et al's report further indicated that the first two criteria highlight the quality of instruction; that is the environment where the problem develops and under what supervision does the special services of the classification fall. Furthermore, the assessment procedure in the third criterion lays emphasis on the evaluation of the quality of instructional settings and the student's response to the setting (Heller, Holtzmanand, and Messick 1982).

According to Shahshahan et al. (2010) the purpose of early identification is for early intervention. When challenges are identified earlier, it provides the possibility of early intervention. Early identification creates the opportunity to enhance a stimulating environment where families, healthcare, and educational professionals are well prepared to support the development, inclusion, and active participation of children with disabilities

Early Intervention

Similar to early identification, early intervention has evolved since its inception in the 1970s to require professionals to acquire specialized preparation and license (Clifford et al, 2005). Early intervention practice involves professionals or paraprofessionals in disciplines responsible for provision of service to children under age 5 with delays or disabilities (Bruder et al, 2009). Professionals in disciplines such as education, nutrition, nursing, psychology, occupational therapy, physical therapy, social work, speech

pathology and special education who have separate and unique pre-service programme and different philosophies of service deliver early intervention services to their clients. (Bruder & Dunst 2005). Bruder& Dunst (2005) further indicated that early intervention specialists are expected to provide evidence-based intervention practice in a natural or less restrictive environment using family-centred philosophy and a transdisciplinary approach. The observation of children's behaviour in a natural setting limit or minimizes the possible influences they may affect the accuracy of information the professional is likely to obtain. The relevance in adopting a family-oriented philosophy in early intervention practice is emphasised by (Baker-Ericzen, Stahmer, & Burns, 2007) that tooling parent/families to address symptoms at the early stage has the tendency to make them self-confident and empowered. Involving parents in the provision of intervention has significant benefit for the wellbeing of the parent and the child. Early intervention could range from parent education to school intervention (Koegel et al, 2014), behaviour management techniques, communication improvement methods (Smith & Camarata, 1999), socialization (Harper, Symon, & Frea, 2008), to academics (Koegel, Koegel, Frea, & Green-Hopkins, 2003) to mention but a few.

Early intervention has tremendous effect on the welfare of the child and family. It augments the probability of improved long-term outcomes. Some people consider certain disabilities (autism) as lifelong disabling conditions (Camarata, 2014), however, there has been many researches which suggest many children who have eliminated their symptoms to be even fit to considered within the typical range (Koegel & LaZebnik, 2004) and a

considerable number eventually function without any special support (Koegel et al, 2014). These achievements cannot be possible without early intervention (Koegel et al, 2014).

Practitioners usually employ certain intervention frameworks that guide the intervention process. Response to intervention framework is one of the models usually employed to provide intervention for children with special needs and disabilities. Response to intervention is a framework in multilevel, designed for early intervention for students who are not successful in the curriculum of general education (Jenkins & Hudson, 2007). Response to intervention model ensures that all students have access to education with the needed support and intervention for academic success (Martinez & Young, 2011). Gerzel-Short and Wilkins (2009) viewed response to intervention model as a formal procedure that schools use to provide direct intervention or instruction to students who may be facing academic or behavioural challenges. Torgesson (2000) posited that the fundamental objective of response to intervention model is to provide students with difficulties or challenges they needed intervention for them to be excelling in the general education curriculum. Martinez and Young (2011) corroborated Torgesson's position by stating that the rationale to providing intervention procedure has shown according to research that early identification can decrease failures in reading. This framework suggests that the first step to a preventive approach is the means to identify students who have challenges in learning even when they are provided with robust evidence based general education. This is the first level of the response to intervention framework. The second level involves identification of students who may require supplementary instructions (Jenkins

& Hudson, 2007). Martinez and Young (2011) added that it is very important to ensure that interventions provided are reliable, accurate and easy to implement.

Berkeley et al. (2009) stated that Responds to Intervention (RTI) has many approaches, however the following procedure is inherent with the various approaches; the first is to define the student's problem, second, plan an intervention for the student, third, implement the intervention and fourth, evaluate the student's progress (Bender & Shores, 2007; Fuchs, Mock, Morgan, & Young, 2003).

Importance of Early Intervention

The importance of early intervention has not been overemphasized in literature for it enhances the development of students with special educational needs and disabilities in areas such social, cognitive, academic and the overall improvement of life. The literature reviewed demonstrated the impact of early intervention on the improvement of the academic character building. Algozzie et al. (2001) indicated an improvement in the life of students with special educational needs and disabilities where the study focused on students' goals, self-control and independence. The subsequent studies looked at the improvement with regards to academic activities in the area of mathematics and reading. The intervention that targeted basic skill in mathematics was found to be most effective, whereas the effectiveness of repeated reading as an intervention to reading difficulties was found not to be backed by research and that is not an evidence-based practice.

Early identification and intervention in United States of America

In the United States of America, early identification and intervention is an integral part of providing support for children with disabilities. The following steps were suggested by Fazzi et al. (2005):

a. *Observation*

The first step is observation. It is important to observe the child at different times of the day. Document your observations without interpretation. Provide clear evidence of the child's difficulties and always include the child's strengths. Be concrete. For example: In morning circle, child imitated hand and body gestures to songs.

b. *Strengths and Needs*

Identifying the strengths and needs of the child is also important. Fazzi et al. (2005) state that teachers should develop a list of the child's strengths and needs. This would help in identifying what the child can do in order to be able to separate them from their deficits.

c. *Consultation*

The next step is consultation. Fazzi et al. (2005) state that it is essential to share observations of the child with a supervisor. This would help to make decisions on the best overall approach to help the child and family. For example: assign one person to spend more time with the child to build a positive relationship. That person should play a key role in communicating with the family.

d. *Building Rapport*

The next step is to build a relationship with the parents of the child in question. This includes asking about the child at home: favourite toys,

communication skills, response to routines. This valuable information can help teachers to better understand the child. This is because parents often have the same concerns about their children and are waiting for someone to validate and assist them in accessing help.

e. ***Meeting with the Family***

After establishing a relationship with the family, there is the need to arrange a meeting with the child's family. Fazzi et al. (2005) stressed the importance of being specific with parents. During the meeting, teachers must share specific examples of their observations, noting both the child's strengths and needs. It is important for teachers to avoid labelling the child, and also put feedback in the context of the child's ability to manage in a group setting. During this meeting teachers should come prepared with information about specialised services available to help the child and family.

f. ***Support Plan***

After meeting with parents, teachers must develop a support plan for the child in a programme using the opinion of experts. It is important to set one or two specific goals that both teachers and parents can work on. The plan must include timelines for the team to review the child's progress. This will set the child and team up for success by teaching the child skills that he or she needs.

g. ***Resources***

Fazzi et al. (2005) recommend that teachers involve outside resources to provide support. A resource consultant could assess the individualised programme, assess the child with special needs and assist in developing an individual support plan. An effective consultant facilitates the partnership

between the centre, the family and any outside resources needed. These resources include continuous evaluation of the intervention as well as evaluation of the child's progress.

Early identification and intervention in South Africa

Samuels, Slemming and Balton (2012) also identified some steps applied in providing early identification and intervention for children with disabilities in South Africa

a. *Screening programme /Referral*

The availability and accessibility of developmental screening programmes for the majority of South African children is limited to health institutions and primary health clinics. Here children are screened and closely monitored at regular intervals for their first year of life and caregivers are provided with information on facilitating a child's development. Children are also screened at local community clinics via the Road to Health Chart/Booklet, designed for early detection of disease, as well as developmental and nutritional problems.

b. *Point of Access*

Children access early intervention services in either the public or private sector through various channels, for example, self-referral, referral from another health or education professional or through existing early intervention programmes, usually based at tertiary level health facilities. Here children identified with potential impairments are given access to specialist services that would determine the nature and severity of their impairment.

c. *Monitoring/Surveillance*

After professional assessment, children are put under strict monitoring to identify the strengths and weaknesses of the child. This monitoring is done by teachers and parents or guardians. While teachers monitor the child's performance in academic work and school, parents are responsible for the monitoring of the child at home.

d. *Comprehensive interdisciplinary assessment*

In South Africa, after effective monitoring of children with potential disabilities, there is an in-depth assessment of the child by an interdisciplinary team. This interdisciplinary team is made up of doctors, specialists, special educator as well as parents and guardians of the child. This team assesses the strengths and weaknesses of the child in order to develop an intervention approach.

e. *Eligibility*

The issue of eligibility for early intervention services in the South African context is closely related accessibility of intervention services. Eligibility for early intervention services is partly due to the location of these services, financial costs, the availability of early intervention professionals as well as the fragmented manner in which government departments tasked with providing early intervention services implement early childhood policies. In examining eligibility, the interdisciplinary team determines whether the child in question gets appropriate intervention and then an Individualized Education Plan (IEP) is drawn.

f. *Entrance into early intervention programmes*

After eligibility is determined, the intervention programme is implemented by the specific member of the interdisciplinary team who are responsible for taking appropriate action. Here the various strategies put in place to help the child with impairment are put into action, in an attempt to help the child.

g. *Monitoring and outcome evaluations*

After the intervention programmes have been implemented, there is regular monitoring of the child's progress in order to determine whether there is any development. Also, the intervention is evaluated to identify aspects that need to be modified or discontinued.

h. *Transition planning*

Finally, after monitoring the progress of the child in relation to the intervention, a plan is put forward to help the child's easy transition into the society. Here, emphasis is laid on the child's ability to perform certain tasks. When a child is able to perform specific tasks, it is envisioned that he or she could function better in the society. However, when the child still has difficulties in the problem areas, the intervention is reviewed and intensified.

Early identification and intervention in Ghana

Information from the National Assessment Centre for Children with Disabilities, Ghana (2021).

a. *Screening (General Assessment)*

In Ghana, the very first thing to do is to screen. In screening, we evaluate or investigate something as part of a methodical survey to assess stability for a particular role or purpose. Professional sometimes move to

schools randomly to do the screening. Also, when parents find some irregularities in their children's behaviour or developments, they take them to the assessment centres for screening. Normally, the screening is done in a large area, with quite a number of children. In conducting the screening, professionals do not have any specific disabilities in mind look out for, they check all aspect of the child and look out for children who are deviating from the norm.

b. Specific Assessment

Here, those children who are deviating from the norm are set aside. Professionals check the specific aspect or area where the child is lacking and become sure of their suspicions. The aim of this test is to double check what they saw during the screening process. Example, in the screening process we found out that a child can't really hear with his right ear, the specific assessment will confirm what they saw.

c. Referral stage

After the specific assessment, if the child is eligible...professionals will communicate or have a meeting with parents to discuss the child's situation. Professional then make referrals. These referrals are made based on the child's condition. If the child needs medical care, he or she will be referred to a medical facility or a facility that will take care of the child's needs.

d. Placement

Here the child is then placed at a facility that will help minimize the situation. Placement encompasses the program, facilities, personnel, location, or equipment that will be needed to provide special education services. Placement is the web of services provided to a student with disabilities. This

placement is done based on the type and the degree of the condition. Example, the child can be placed in a special school, regular school with consultation or any other place that deem fit for the child.

Follow ups

After the child has been placed in a facility where he or she is taking an intervention, professionals do follow ups to check the progress of the child whether where he is placed is helping or the intervention being given is helping or not. Children placed in the general education classrooms get frequent visits from the professionals than those in the special schools. This is because, teachers in the general education classroom have less knowledge in special education than teachers in the special schools.

Summary of the various steps of early identification and intervention

Screening in Ghana is mostly done in the pre-schools by professionals who visit the school with no specific instrument, while in South Africa, children are closely monitored within their first year of life. They also conduct screening at their local community clinic using the Road to Health Chart/Booklet, designed for early detection of disease, as well as developmental and nutritional problems. In the United States, observation is used as a form of screening by preschool teachers.

After the screening, all the countries mentioned make some adaptations for the child to see if he or she can cope for some time and if the problem still persists, then referrals are made. In all the three countries, eligibility is being determined by professionals with the involvement of parents after which they come together to draw the Individualized Education Plan (IEP) or the Individualized Family Service Plan (IFSP), but in South Africa, the child is

put under strict monitoring to identify the strength and weakness and also the nature and the severity of the impairment after which the IEP is drawn.

With the placement options, all the countries place children at an appropriate facility based on the nature and the severity of the child's impairment with the help of professionals. Follow ups or monitoring is done to check the progress of the child whether where he has been placed is helping or the intervention given is helping or not. This is done by all the three countries, but here in Ghana, children placed in the general education classrooms gets frequent visits than those in the special schools. This is because, teachers in the general education classroom have less knowledge in special education than teachers in the special schools.

After the monitoring, evaluation is done by all the countries. This is done either to maintain the programme, makes some changes or even stop it if it is not helping the child. In the United States and South Africa, a transition plan is made after the evaluation. This is to support the child live as independently as possible and can be determined by the child's eligibility and present level of performance.

Empirical Review

This review is composed of the various empirical studies related to the objectives under study. The empirical review explores the research questions that are guiding the study. It aided in understanding the various perspectives of researchers and also helped in the discussion of the findings from this study.

Teacher's knowledge in identification and intervention of children with SEND

Buell, Hallam, Gamel-McCormick (1999) conducted a survey to ascertain the knowledge and perceptions of general education teachers and special education teachers. The survey was state-wide needs assessment conducted in a one state's Department of Education with the purpose of improving the educational services to students with disability and tailor the system of personnel development. The areas assessed were teacher's ability to influence students positively through the intervention provided, teacher's understanding of inclusion, self-efficacy in providing intervention services for students in inclusive settings, the need for in-service training, and the availability of support. Four percent of the state's general education teachers and 6% of special education teachers completed the survey of a total of 289 surveys. In all the areas assessed, special education teachers were rated higher than the general education teachers. Special education teachers were found to rate more knowledgeable in skills used in identifying and providing intervention to students with special education need and disability than general education teachers.

In a study to find the relationship between special education and inclusive education, Florian (2008) looked at the notion of specialist's knowledge among teachers and the roles staff have adopted to working with children with special educational needs and disabilities in the mainstream settings. The study explored the implications that are likely to arise in the use of 'special needs' as a concept, especially in relation to the implementation of inclusion as a practice. Using the qualitative approach, Florian (2008)

indicated that in the mainstream setting, teachers face dilemmas when dealing with learners' difficulties. Their concern is with perpetuating the stigmatization effect when in attempt to dealing with the students' difficulty will mark them out as different. Moreover, Florian suggested that teachers need more knowledge in using specific instructional methods to identifying and providing intervention for learning difficulties. Florian concluded that a thorough examination of how teachers operate in the classroom should be looked at in the practice of education.

In another study, Agbenyega and Kliboth (2014) sought to find out Thai school teachers' knowledge in identifying and providing intervention for students in inclusive early children education. Quantitative data from 175 teachers from 11 public and 12 private inclusive early childhood centres were obtained through a questionnaire which was supplemented by interviews. The quantitative and qualitative data centred on the assessment of their professional knowledge. It was found that 65.7% of the teachers did not have an academic qualification in special education but were teaching children with special educational needs. Agbenyega and Kliboth indicated the existence of a significant barrier in teachers' professional knowledge in serving the needs of students with and without disability in the educational setting. This may imply that majority of the teachers had low knowledge in procedures to identify and provide intervention for children with special educational needs.

O'connor, Yasik and Horner (2016) conducted a study to ascertain teacher's knowledge of special education laws. The purpose of the study was to find out the level of teachers' knowledge and their understanding of all aspects of special educational laws since they are usually the first to identify

children with special educational needs and refer them for evaluation. The approach used for the study is a mixed method approach. A 24-item survey was administered from kindergarten through to eighth grade teachers to determine their familiarity and knowledge of the laws regulating the procedures involved in identifying and providing intervention for children with special educational needs. The results of the study revealed that teachers lack essential knowledge and understanding about the laws that regulate the procedures in identifying and providing intervention for students with special educational needs.

Procedures teachers use in identifying children with SEND

Sonnander (2000) conducted a study on the steps to ascertain early identification of children with developmental disabilities. The study was an overview of early identification of children with disabilities particularly in healthcare. Specifically, the disabilities reviewed were the ones related to cognitive impairment. The approach employed for the study was the extended review which covered related topics like: definition of target groups, predictive value of developmental screening instruments and psychomotor tests, risk index, early intervention and evaluation of developmental screening programmes. The study reported that screening children was an important step in identifying children with special needs.

Vaughn and Fuchs (2003) conducted a study do discuss the response to instruction approach to identifying learning disabilities. The study employed a qualitative approach to explore questions that may be of concern to using response to instruction approach to identifying learning disabilities such as the need for validated intervention and assessment methods, the adequacy of

response to instruction as the endpoint in identification, appropriateness of instruction intensity, the need for adequately trained personnel, and following due process. The study reviews advantages of using the response to instruction approach in identification of learning disabilities are identification of students based on risk than deficit, early identification and instruction, reduction of identification bias, and linkage of identification assessment with instructional planning.

Vaughn, Linan-Thompson and Hickman (2003) also conducted a study using response to instruction model as a means of identifying students with learning disabilities specifically reading. To assess the model as a means that can be used to identify students with reading disabilities, 45 second grade students who were known to be at risk for reading difficulties were sampled for the study. The Texas Primary Reading Inventory (TPRI) was used where students were provided with supplemental reading instructions on a daily basis. Students were tested in the areas of fluency, passage comprehension, and rapid naming. The students were assessed after 10 weeks to determine whether or not they met a prior criterion to be identified as with or without learning disability. The students who met the criteria were not given supplemental reading any longer. However, students who did not meet the criteria were regrouped and received supplemental instructions for another 10 weeks. After the second 10 weeks' observation, students who still met the criteria were given another 10 weeks' supplemental instruction. Students who never met the criteria were identified as at risk of having reading/learning disability.

Van Der Heyden, Witt and Gilbertson (2007) conducted a multi-year evaluation of the effects of a response to intervention model on identification of students with special educational needs. The study was intended to examine the effects of implementing response to intervention model on identifying and evaluating students with special educational needs. Using a multiple baseline design, 5 elementary schools in the Southwestern suburban district in US were used for the study. The System to Enhance Educational Performance (STEEP) model was introduced to the schools in consecutive years in the district. Furthermore, the study took cognizance and examined effects of response to intervention on the number of evaluations conducted, percentage of evaluated students who qualified for the services and the proportion of identified children by sex and ethnicity. The study inquired the magnitude of impact the implementation of STEEP had on the total number of evaluation and percentage of evaluations that qualified students and identified students as at risk for having a learning disability. During a baseline evaluation, an average of 41% of students was identified as students with learning disability. With the implementation of STEEP, the percentage increased to 71% and when STEEP was removed the percentage was reduced to 40%.

Jenkins and Johnson's (2007) study on screening for at-risk readers in a response to intervention framework examined a component in a response to intervention approach for learners with learning difficulties. The study focused on students who may be at risk for unsatisfactory reading achievement. The areas examined were classification accuracy and factors that affect it. In this regard the study relied on 1998 study that examined classification accuracy of reading. Research on candidate's measures with potential for identifying

students at-risk for reading disabilities and areas in need for more research were examined. With regards to classification accuracy, sensitivity was measured between 12% to 91% and specificity from 77% to 91%. The study mentioned that to identify students who may be at risk of learning disability and will need supplemental instructions, screening is required.

Navon et al. (2001) conducted a study on use of the paediatric symptom checklist in strategies to improve preventive behavioural health care. The study examined the utility of the Paediatric Symptom Checklist (PSC) in identifying youth at risk of behavioural health problems and to develop strategies to meet their mental health needs. The Paediatric Symptom Checklist was used. It was completed by the parents of 570 children aged two to 18 years at three urban health centres in Massachusetts. Of the 570 children in the screening sample, 144 (25 percent) had moderate to severe behavioural health problems, as indicated by a positive score on the PSC, and 2 percent had a serious emotional disturbance. Of the 297 pre-school-aged children (younger than six years), 67 (23 percent) received a positive score. Of the 283 school-aged children (age six and older) from both English- and Spanish-speaking families, 77 (27 percent) received a positive score. About one-third of the severely emotionally disturbed youth were receiving some mental health treatment, but only 20 percent were rated by the multidisciplinary team as receiving adequate treatment. The results indicated that the PSC in this study promoted an increase in referrals for children in need.

Procedures involved in early educational intervention

The essence of providing intervention is to improve in the development of students with special educational needs and disabilities. Algozzine,

Browder, Karvonen, Test and Wood (2001) conducted a study on the effects of interventions to promote self-determination for individuals with disabilities. The scope of self-determination covered a combination of skills, knowledge and beliefs that enabled the student to engage in a goal directed, self-regulated and autonomous behaviour. The study acknowledged the paucity in research on the outcomes of self-determination intervention. Using a quantitative meta-analysis, a comprehensive literature review was used to investigate self-determination intervention studied, what groups of students with disabilities have been taught self-determination, and the outcomes that have been achieved using self-determination intervention. Fifty-one studies that have reviewed one or more components of self-determination were identified where 22 were used for the meta-analyses. The median of 9 studies across 100 group intervention was 1.38.

Abdullah, Abdullah, Bari1 and Yasin (2016) conducted a study on early intervention implementation preschool special education students in Malaysia. The study sought to explore the practice of implementation of early intervention preschool special education towards preparation for school. The study used a qualitative approach with case study design. Data were collected through structured interview techniques and document analysis. Data was analysed using ATLAS.ti 7.1.8.T. The findings showed that there are seven themes identified practices affecting the implementation of early intervention teachers' understanding of early intervention, early intervention program implementation practices, Preschool Special Education curriculum, teacher recruitment, infrastructure, collaboration and monitoring. It was also revealed that effective communication and collaboration between teachers, parents and

other professionals is a key part of ensuring that intervention for children with SEND is effective and well planned.

Dube and Nkomo (2022) conducted a study on responding to learner needs through adaptation, accommodation, and modification. The study looked at ways in which the unique needs of different learners in an African context can be effectively met through adaptation, accommodation, and modification. The findings shown that, adaptation and accommodation strategies were one of the best ways the learners with physical disabilities, intellectual disabilities, visual loss, hearing loss, learning disabilities, emotional and behavioural disorders, communication and speech disorders can effectively learn in the inclusive classroom.

Engel-Yeger, Gal, and Schreur (2010) also conducted a study on inclusion of children with disabilities: teachers' attitudes and requirements for environmental accommodations. The study sought the importance of preschool teachers' attitudes as the human environment factor that may facilitate inclusion of children with disability, and teachers' major concerns about environmental accommodations that inclusion implies. Fifty-three preschool teachers completed the attitudes toward disabled persons scale (ATDP-A) and the environmental accommodations of school (EAS), which was designed especially for this study. They found that teacher's requirements for accommodations also highly correlated with environmental working conditions (e.g., working hours, number of children). Teachers were most concerned about accommodations for children with potential behaviour problems.

Niemeyer and Proctor (2001) also conducted a study on preservice teacher beliefs about inclusion and implications for early intervention educators. This study examined the development of preservice teacher beliefs about inclusion. Six undergraduates from a south-eastern university who were enrolled in a birth through kindergarten licensure program were interviewed and made available reflective writings for a qualitative analysis. Some beliefs were found during the group focus interview and initial individual interview. One of those beliefs is advocacy. The study found that student teachers believed part of the role of teaching young children with special needs is being their advocate. Data suggested that students held positive beliefs about inclusion, although the context of the inclusion setting also mediated these beliefs.

Parental involvement in the identification and intervention process of children with SEND

The identification and intervention procedures to children with special educational needs and disabilities will be inconclusive without parents' involvement in the process. Calderon (2000) conducted a study on "parental involvement in deaf children's education programs as a predictor of child's language, early reading and social emotional development". The study assessed the impact of school-based teacher-rated parental involvement on possible child outcomes in the areas of language development, early reading skills, and positive and negative assessments of socio-emotional development. Using early intervention programmes for children with hearing loss, 28 children within the age three (3) to seven (7) years were assessed for the outcomes for a period of nine (9) to fifty-three (53) months. Using a

qualitative approach, records from early intervention programs were reviewed and data were collected on the children. Interventionist's narrative notes were evaluated to assess parental involvement during home visits. Factors that were explored in the study were hearing loss, mother's education level, mother's communication skills with the child and additional services apart from the intervention provided by the school. It was found that even though parental involvement in the child's school-based intervention programme has positive impact on the child's improvement, parent's communication skills contribute more to the child's language development and academic development.

Senechal and LeFevre (2002) also conducted a five-year longitudinal study on "parental involvement in the development of children's reading skill". The study examined the relations among early home literacy experience, subsequent receptive language and emergent literacy skills, and reading achievements. A total of 168 middle and upper middle-class students from 3 schools in Ottawa were used for the study. At the beginning of the study, children were individually tested in their schools while parents were made to complete checklists and questionnaire in the house. The findings of the study indicated that parental involvement in teaching their children how to read and write influenced children's early development in literacy skills. The results established a relationship between children's exposure to books and development of vocabulary and listening comprehensive skills and their impact on children's ability to read.

Spann, Kohler and Soensksen (2003) conducted a study, "examining parent's involvement in and perceptions of special education services". The study aimed at examining parents' involvement and perceptions about the

identification and intervention services for their children with special educational needs. A total of 45 parents with autistic children were sampled to participate in the study. An interview method was employed for the study to ascertain parents' involvement in the identification and intervention procedures that were provided for their children. A telephone survey method was used to collect data using a 15-item questionnaire in the areas of educational placement and interventional services, frequency of parents' communication with teachers, parents' knowledge and involvement in the planning of their children's Individualized Educational Plan (IEP), and priority of parents and overall satisfaction of the intervention services provided for their children. The findings indicated that majority of children spent their day in school and received intervention services; however, parents were of the view that their priorities and pressing needs for their children were not being met.

Parents' involvement to the identification and intervention process provided for their children with special educational needs have been proven to have some significance. Burke (2013) realised the importance of improving parental involvement. In a study on "Improving Parental Involvement: Training Special Education Advocates", Burke (2013) posited that parents of children with special educational needs have a better understanding of special educational system and secure appropriate educational intervention services for their children with disabilities. The study explored the efficacy of two distinctive advocacy programmes; "the special education advocacy training and the volunteer advocacy project on parental involvement in the intervention services provided for their children with special education needs and

disabilities. The study discussed the consequences of advocacy trainings on the special education field, the universities and for service providers. They concluded that more research on family-school collaboration is needed.

The various studies reviewed on parental involvement point the significance and impact it has on the identification and educational intervention procedures as well as the development of children with special educational needs and disabilities. Two of the studies demonstrate the positive impacts parental involvement have on the educational intervention provided for children with special education needs and disabilities. It was established that parental involvement with regards to their communication skills have positive significance on the language development of deaf children and parental involvement in the reading intervention enhanced early development of children's reading abilities. The last two studies looked at ways of improving parental involvement. While one looked at the pragmatic ways of improving parental involvement through parent's perception on the educational intervention services provided, the other looked at the impact of advocacy training.

Summary of Literature Review

This chapter reviewed literature that is related and relevant to this study. This chapter looked at the theoretical review of this study stressing the unified theory of practice in early intervention and the socio-ecological theory. The chapter also expounded the variables in the study and how they were connected to each other and also the procedures for assessing children with special educational needs and disabilities. It furthermore reviewed diverse empirical findings of studies done in the USA, Asia, Africa and Europe

patients and non-patients in relation to the purposes of the study. The insights from the empirical review are considered relevant in the discussion of the findings from this research.



CHAPTER THREE

RESEARCH METHODS

Introduction

This study aims at finding the procedures preschool teachers use in early identification and intervention of children with special educational needs and disabilities (SEND) in the KEEA Municipality. This section describes the research design, population, sample and sampling procedure, the research instrument, pilot testing of instrument, validity and reliability of the study, data collection procedure, and data analysis procedures that were used.

Research Design

The pragmatic philosophy guides this research, this philosophy only accepts concepts that are practical. Pragmatism is based on the epistemology that, there is no single way of learning but different ways of understanding, because there are multiple realities (Saunders, et al. 2007). Knowledge from these different realities is gained through the integration of multiple methods, that is both qualitative and quantitative research method which this study employs. Multiple Methods Research as the type of research in which researchers draw on data from more than one source and employ more than one type of analysis (Creswell and Plano Clark 2007; Johnson and Onwuegbuzie 2004). This approach typically involves using both quantitative and qualitative methods, as well as mixed-methods designs. By using a combination of research methods, researchers can gain a more comprehensive understanding of the research question or problem, while also increasing the validity of their findings.

The multiple method design aids researchers in overcoming the limitations of using only the quantitative method by allowing them to collect qualitative data in addition to quantitative data to address the related questions (Fetters, Curry & Creswell, 2013). While some of the research questions in this study necessitate quantitative data and analyses, others necessitate qualitative data and analyses.

Although the multiple method design is advantageous, it has been criticized for its sophistication and time-consuming, as it requires a significant investment of time and resources to collect and analyze data from different sources (McBride, MacMillan, George & Steiner, 2019). Also, combining different research methods can be complex and challenging, as it requires careful planning and coordination to ensure that the methods complement each other and that the data can be integrated and analyzed effectively (Morgan, 2007; Onwuegbuzie & Leech, 2005). Despite the flaws and criticisms levelled at the multiply method research design, it has the ability to gather data from multiple perspectives and sources, providing a more comprehensive understanding of the research question or problem. Also, it allows researchers to be flexible and adaptable in their approach, as they can use different methods to address different aspects of the research question or problem. (Creswell, 2017; Teddlie & Tashakkori, 2020). This study is deemed most suitable for this analysis because it allows for the achievement of the study's goal.

Study Area

The study area is the Komenda-Edina-Eguafo-Abbrem (KEEA) Municipality. KEEA is located in the Central Region of Ghana. According to the 2018 projections by Ghana Statistical Services (GSS), KEEA has a population of 139,664 people (Ghana Statistical Services, 2019) and the native language of the people in KEEA is Fante. However, most people in the municipality can understand simple English language and terminologies. KEEA is made up four paramouncies: Komenda, Edina, Eguafo and Abbrem. These areas are headed by individual paramount chiefs. KEEA is typically a fishing and farming municipality. The municipality has a number of educational institutions. There are a total of 317 schools in the municipality from the pre-school up to the tertiary level under both public and private ownership. This includes 42 pre-schools, 271 basic schools (primary and junior high schools, 3 senior high schools and one college of education at Komenda (Komend Edina Eguafo Abrem Municipal Assembly [KEEAMA], 2017). This study specifically focuses on the 42 preschools in the KEEA municipality.

Population

A research population refers to the entire group of persons or objects that is of concern to the researcher (Hawe & Potvin 2009). Research population is essentially separated into the target population and the accessible population. The entire collection of units for which survey data were used to make inferences is referred to as the target population for a survey (Asiamah, Mensah & Oteng-Abayie, 2017). As a result, the target group identifies the units for which the survey's results are intended to be generalized (Zhao, Tian,

Cai, Claggett & Wei, 2013). The accessible population refers to the total number of cases that meet a set of standards and are available to the researcher. In most cases, the researcher generalizes to a target population by drawing a sample from an accessible population (Cohen, Manion & Morrison, 2017). The target population is all preschool teachers and parents of preschool pupils in public and private primary schools in the KEEA municipality. The number of preschool teachers in the KEEA municipality is 168.

Sample and Sampling Procedure

This study applied several techniques in arriving at the respondents who took part in it. Census technique was used to select the teachers who were involved in this study. In census technique, every unit of the population is involved in the study. Due to the number of preschool teachers available (n=168), census technique was considered more appropriate for the study since the number was deemed too small to sample from. Out of these 168 teachers, 12 of them who teach children with SEND were conveniently selected for the qualitative phase of this research based on the recommendation of Clarke and Braun (2013).

Purposive sampling technique was used to sample 57 parents whose children were suspected to be having or were diagnosed of disabilities (Sharma, 2017; Cohen et al., 2017). The purposive sampling technique is a form of non-probability sampling which the investigator relies on personal judgements when selecting members of the population to participate in the study (Etikan, Musa & Alkassim, 2016; Faulkner & Faulkner, 2018). In purposive sampling, the sample is selected based on specific characteristics that members of the population possess (Etikan & Bala, 2017). Purposive

sampling technique was adopted for this study since the study focused on a category of parents whose children had been identified as having special educational needs and disabilities. Parents involved in this study formed part of the qualitative phase of this study. Twelve (12) parents were conveniently sampled for the qualitative part of this research. This sample size for the parents involved in the qualitative part of this study was used because at a point the researcher reached research saturation, and ended at 12. Also based on the recommendation of Clarke and Braun (2013), who suggest that at least 12 respondents are enough for a qualitative study. Thus, a total of 180 respondents were used for this study.

Inclusion Criteria

The criteria for selecting the schools for the study were private or public preschools with or without children suspected of or being diagnosed with special educational needs and disabilities and who were between the ages of two and five years in the KEEA municipality. The study also included parents whose children have been identified as having special educational needs and disabilities.

Data Collection Instruments

An important part of planning a research project is the choice of instrument used to collect data. Since this study is multiple method study, different research questions require different set of data collection instruments. The data collection instruments for the quantitative and qualitative aspects of the study are further explained.

Quantitative Data Collection Instrument

The quantitative data collection instrument focuses on research question one which was meant to examine the teachers' knowledge in early identification and intervention for children with SEND. A well-structured questionnaire was used to collect data on teachers' knowledge. A questionnaire is a tool consisting of a written list of items for the purpose of collecting data. It requires participants to read and understand and provide written responses to meet the study's goals (Krosnick, 2018). The questionnaire was selected because it is less costly and provides more anonymity or privacy, especially when it involves sensitive issues. It is also helpful when a large sample is examined (Gillham, 2008).

The knowledge of preschool teachers on early identification and intervention was assessed using an adapted form of Knowledge Identification of Children with Special Needs Questionnaire (KICSNQ) developed by Shari and Vranda (2015). The instrument includes 18-items measured on a 4-point Likert-type scale (1= strongly disagree, 2= disagree, 3= agree and 4= strongly agree) that examines the level of knowledge an individual has in relation to identifying children with special needs. It was done to suit preschool teachers specifically. The highest score that can be obtained on the question is 72: higher scores on the questionnaire imply high knowledge in identifying children with special educational needs. The questionnaire has been used by some researchers and has been found to have a high Cronbach's alpha. For example, Shari and Vranda (2015) reported a reliability coefficient of .87 while Abdul, Yusuf and Rizki (2019) reported a Cronbach's alpha coefficient of .81 among teachers. This high reliability communicates the idea that the

instrument is reliable. A total number of 168 questionnaires were distributed but 159 were retrieved. A further examination revealed that 144 (85.7%) of the retrieved were valid questionnaires to be used for the analysis.

Qualitative Data Collection Instrument

Semi-structured interview guide was used to gather qualitative data. A semi-structured interview is a technique of research used most often in the social sciences (Newcomer, Hatry & Wholey, 2015). While a structured interview has a rigorous set of questions which does not allow one to divert, a semi-structured interview is open, allowing new ideas to be brought up during the interview as a result of what the interviewee says (Roulston, & Choi, 2018). The interviewer in a semi-structured interview generally has a framework of themes to be explored (Kallio, Pietilä, Johnson & Kangasniemi, 2016). Unlike the questionnaire, the semi-structured interview guide was developed by the researcher based on literature in the research area. The semi-structured interview guide was designed to collect data on research question 2, 3 and 4, which were explored qualitatively.

Reliability and Validity

Reliability refers to a measure being consistently reproducible, and validity is whether the tool for data collection measures what it was set out to measure. According to Osuala (2005), content validity of an instrument demonstrates that the items of that instrument are representative and comprehensive enough to represent and measure a presumed objective and variable. In the case of reliability, Fraenkel and Wallen (2000) note that it borders on the consistency of an instrument for each respondent, from one administration to another and from one set of items to another. In order to

ascertain reliability and validity of the questionnaire and interview guide for the study, they were first given to my supervisors for their perusal, suggestion and correction. The Cronbach's alpha reliability coefficient was also used to examine the internal consistency of the quantitative data collection. The instruments were submitted to expert supervisors to confirm its content and face validity.

The instruments were pre-tested with 17 teachers from Ghana National Basic School in the Cape Coast Metropolis in order to ensure reliability of the research questionnaire and trustworthiness of the semi-structured interviews. This school was selected for the pre-testing because it is a mixed type of school where pupils with and without special educational needs and disabilities are in the same classroom. The purpose of pre-testing the data collection instruments was to subject them to tests to determine their reliability, validity, dependability and trustworthiness (Hilton, 2017). Also, the pre-test was conducted to find out if the instructions in the instrument were understandable and adequate enough without ambiguities or any verbosity to enable respondents to complete the instrument accurately (Cohen et al., 2017). The semi-structured interview questions consisted of 3 sections; A, B and C. Section A talked about the procedures preschool teachers use in identifying children with special educational needs and disabilities, it consisted of 5 itemized questions, but one question was left out after the pilot test. Section B also looked at the procedures involved in the early educational intervention for children with special educational needs and disabilities which also consisted of 5 itemized questions but a question was dropped after the pilot test while Section C dealt with parental involvement in the identification and

intervention process for children with special educational needs and disabilities also had 8 itemized questions but a question was dropped after the pilot. Results from the reliability analysis during the pre-testing of the instrument are shown in Table 1.

Table 1- *Reliability coefficient from the pre-testing*

Instrument	Number of items	Cronbach's alpha
KICSNQ (Shari & Vranda, 2015)	18	.74
N= 17		

From Table 1, the reliability coefficient from the pre-testing of the data collection instrument was .74. This shows that the instrument has a high internal consistency. This was considered appropriate based on the recommendation of Fraenkel and Wallen (2000) who suggest that a reliability coefficient above .60 implies an acceptable reliability.

Data Collection Procedure

In collecting data for the study, a letter of introduction and ethical clearance certificate were acquired from the Department of Education and Psychology and the Institutional Review Board (UCC-IRB), (Appendix F) respectively at the University of Cape Coast. The introductory letter and ethical clearance certificate were submitted to seek for permission from the headteachers of the primary schools in the KEEA municipality to administer the instrument during school hours. Also, the parents filled a consent form (Appendix D) indicating their approval to partake in the study. Since the study has both quantitative and qualitative phases, the data collection procedures employed at each phase is further explained as follows:

Quantitative data collection procedure

After the researcher had gone through the required procedures, contact was made with the participants (preschool teachers) during school hours. The researcher briefly introduced the topic, the purpose of the research and the importance of the study to the participants. The instruction and the nature of the questionnaire were clarified to the respondents to avoid problems related to answering the questionnaire. The questionnaires (See Appendix A) were distributed personally by the researcher to participants who accepted to participate in the survey. Participants who encountered difficulties in responding to the questionnaire on their own were assisted by the researcher. There was no identification information on the questionnaire. Thus, the questionnaires were filled anonymously by the participants. Participants took between 10 to 25 minutes to complete the questionnaire. Data collection took approximately 6 weeks.

Qualitative data collection procedure

The qualitative phase of the data collection was carried out with the aid of a semi-structured interview guide (See Appendix B). Thus, interviews were required to gather ample data for this phase of the study. Interviews were conducted with 12 preschool teachers and 12 parents who agreed to participate in the study. Participants were not required to provide any form of identification. With the permission of the participants, interviews were audio taped. Interviews were conducted in English Language; however, some interviews were conducted in the local Language (Fante) where necessary. The participants were asked the various questions using the semi-structured interview guide as a framework. Participants were required to elaborate on

responses that were deemed to be unclear or responses that required additional information. Interviews lasted between 25 and 35 minutes for each participant.

Data Processing and Analysis

Data analysis has been explained by Fraenkel and Wallen (2000) as the process of simplifying data in order to make it comprehensible. Pallant (2005) posits that analysis may involve calculating the total score on a scale, adding up the scores obtained on each of the individual items or collapsing a continuous variable into a smaller number of discrete categories. Since this study has both quantitative and qualitative sections, the data processing and analyses procedure have been examined below:

Quantitative data analyses

Quantitative data collected was subjected to cleaning, organisation and statistical analyses using Statistical Package for Service Solution (SPSS). The data analysed took into consideration the demographic information of the respondents. Demographic data was analysed using frequency and percentage, as well as mean and standard deviation when appropriate.

Data collected on research question 1 was analysed using means and standard deviation. Means and standard deviation was deemed appropriate since the researcher sought to examine the level of knowledge of preschool teachers in KEEA with respect to early identification of children with special needs. Based on the scoring of the KICSNQ by Shari and Vranda (2015) an average score of 45 was set. Thus, a mean above 45 implied that preschool teachers in KEEA have above knowledge in identifying children with special needs, while a mean score below 45 implied that preschool teachers in KEEA have below average knowledge in early identification. From this statistical

approach, the researcher was able to determine whether preschool teachers in KEEA have low, average or high knowledge in early identification of children with special needs.

Qualitative data analyses

The qualitative phase of the study focused on answering research questions 2, 3 and 4. Audio-taped interviews were transcribed verbatim, and interviews conducted in the local Language (Fante) were translated into English Language to aid proper analyses of qualitative data. Data on research questions 2, 3 and 4 were analysed qualitatively using the thematic analysis approach as suggested by Braun and Clarke (2006). Braun and Clarke (2006) defined six steps that can be used in thematic analysis.

The first step deals with immersing oneself in the data. This stage includes regular transcriptions of interviews and reading of the transcripts (Braun & Clarke, 2006). Transcribing is a time-consuming process, but it is useful since it helps the researcher to get to know the data and offers the opportunity to begin to think about possible codes (Braun & Clarke, 2006). The researcher systematically searched for definitions and trends while reading transcripts. Throughout this stage, it is helpful to make notes about potential categories of coding which could be established in subsequent studies.

The second stage includes initial code generation. Upon familiarity with the results, the researcher identified an initial list of codes. Generating codes enable organisation of the data into meaningful units, but they are not yet in themes, which are broader to and may capture several codes (Braun & Clarke, 2006). It is critical to code for as many potential themes as possible, as

the value of some codes became apparent later in the process and more than once code may be applied to portions of the data set (Clarke & Braun, 2013).

The third stage is where the researcher searched for themes. If the data has been coded and content falling under the same codes put together, a hunt for themes has begun. This stage includes considering how various codes would fit into one broader theme. Braun and Clarke (2013) recommend that the themes can be organised into major themes and subthemes.

At the fourth stage, the themes were identified and categorised. After recognizing a range of possible themes there was the need to review and redefine the themes. That is because some themes were not important to the questions of study while others merged into larger concepts or formed separate themes. Braun and Clarke (2013) recommend that reading the full data again helps collect data that matches the themes that were missed in earlier coding.

The fifth stage includes the thematic description and naming. If there is a thematic chart of the data there may be more refinement of the themes (Clarke & Braun, 2014). The important task here is to define the core concept in each theme and give a name that captures the concept in a succinct way. Writing detailed analysis of each single theme and how it fits into the overall picture of the data set is important (Braun & Clarke, 2013).

Finally, the sixth stage deals with producing the report of the analysis. After the themes and their relationships were identified fully, the research report will be written. The report presents the analysis in a way that was meaningful and the reader can see it as trustworthy (Clarke & Braun, 2014). This involves including data extracts that distinctly illustrate the themes as well as discussions of the decisions that were made during the process of the

study. The report of the study needs to go beyond a simple description of the data to develop and argument (Clarke & Braun 2014).

Ethical Consideration

Ethical issues are very important in every research work which in this particular study, were taken seriously. The respondents were assured of their anonymity and confidentiality. These ethical issues were adhered to since respondents were required to disclose their identity. The views of the respondents were handled with utmost care and confidentiality. It indicated the confidentiality to be accorded to the report received from respondents, not to infringe on the rights of the respondents and their institutions to provide trustworthiness of the study. Consent forms were provided and filled by participants to indicate their willingness to participate in the study. It also indicated that they were at liberty to opt out of the study. Voice recordings and filled questionnaires would be kept safe by the researcher for three years before discarding as approved by UCC-IRB.

Summary

This chapter discussed the research methods that were applied in this study. It briefly describes the pragmatic philosophy upon which the study was conducted. The chapter also provides detailed information and justification for the research design, population, sample, data-collection instrument, ethical considerations, data collection and the data analysis procedure applied in this study. Since this study is a multiple method study, it takes into consideration the required and appropriate procedures for conducting multiple method research studies.

CHAPTER FOUR

RESULTS AND DISCUSSION

This research focused on exploring strategies for early identification and intervention for children with special educational needs and disabilities in the KEEA Municipality. The preceding chapter outlined the various research methods that were applied in the study. This chapter is a presentation of the results from the data collected from the field. The findings or the results are also discussed as related to previous literature.

Out of a target of 168 respondents, 144 individuals participated in the study, giving 85.7% response rate. This rate was deemed adequate for analyses in quantitative study (Saunders & Thornhill, 2007). The results from the analyses of data have been presented. They cover the description of the sample, results from the quantitative data analyses on research question one, as well as results from the qualitative data analysis of research question two, three and four. Tables have been presented to support results and findings on research question one, while excerpts from the interviews have also been provided to back findings on research questions two, three and four.

Description of Sample (Demographic Information)

This section describes the demographic information of the respondents involved in the study. Demographic information included, gender, age, level of education and years of working experience.

Gender of Respondents

The gender distribution of respondents in the study is shown in Table 2.

Table 2- *Gender Distribution of Respondents*

Gender	Frequency	Percentage (%)
Male	37	25.7
Female	107	74.3
Total	144	100.0

Source: Field survey (2021)

Table 2 shows that more than two-thirds of the respondents were female, representing 74.3% of the total sample size. This is considered representative since studies by Sak (2018) suggests that female preschool teachers significantly out number their male counterparts.

Age of Respondents

The age of respondents was thought to be important to the study, therefore the researcher sought to establish the age range of the respondents.

Table 3 presents the age distribution of respondents.

Table 3- *Age Distribution of Respondents*

Age range	Frequency	Percentage (%)
Less than 25 years	39	27.1
26 to 40 years	77	53.5
41 years of more	28	19.4
Total	144	100.0

Source: Field survey (2021)

From Table 3, more than half (53.5%) of the respondents were aged between 26 to 40 years. Also, 27.1% of the respondents were less than 25 years and 19.4% of the respondents were 41 years or older. It can be inferred from these results that majority of preschool teachers in the KEEA district are at the appropriate working age.

Highest Level of Education

The level of education of respondents is shown in Table 4.

Table 4- *Highest Level of Education of Respondents*

Level of education	Frequency	Percentage (%)
Diploma	43	29.9
Bachelor's Degree	75	52.1
Other	26	18.1
Total	144	100.0

Source: Field survey (2021)

From Table 4, over half of the participants hold a bachelor's degree, while 29.9% are diploma holders. However, 18.1% of the respondents reported they hold other forms of educational qualification. From the results, it can be stated that majority of the preschool teachers in the KEEA district are qualified to handle preschool learners.

Years of Teaching Experience

Table 5 shows the distribution of respondents according to the years of teaching experience.

Table 5- *Years of Teaching Experience*

Number of years	Frequency	Percentage (%)
Less than 1 year	25	17.4
1 to 5 years	57	39.6
6 to 10 years	41	28.5
More than 10 years	21	14.6
Total	144	100.0

Source: Field survey (2021)

From Table 5, majority (39.6%) of the respondents have 1 to 5 years teaching experience, 28.5% of the respondents have 6 to 10 years of teaching experience. Furthermore, 17.4% and 14.6% reported having less than 1 year and more than 10 years working experiences respectively.

Analysis of Data on Research Questions

The results from analysis of data on the four research questions in the study have been presented. Answering the research questions was important to meeting the objectives of the study.

Research Question 1: What is the level of knowledge of preschool teachers in the identification and intervention procedures of children with special educational needs and disabilities in the KEEA Municipality?

The first research question sought to examine the knowledge level of preschool teachers with respect to identification and intervention procedures for children with special educational needs. Data on this research question was analysed using means and standard deviation. Based on the scoring of the KICSNQ by Shari and Vranda (2015) an average score of 45 was set. The overall means score of preschool teachers was compared to this average score of 45. Thus, a mean below 45 was interpreted as below average knowledge in early identification and intervention, while a mean score above 45 was interpreted as above average knowledge in early identification and intervention of children with special education needs. Table 6 shows the means and standard deviation of the various items on the KICSNQ as well as the overall mean score of preschool teachers with respect to their knowledge in early identification and intervention procedures.

Table 6- *Teachers' Knowledge in EII procedures*

<i>Statements</i>	M	SD
1 Ability to identify children with special need is important for preschool teachers	3.71	.456
2 Preschool teachers have what it takes to be able to identify children with special needs	2.97	.723
3 Preschool teachers have adequate knowledge in steps to identify children with special needs	2.58	.685
4 Preschool teachers are able to identify children with impairments (hearing, visual, physical, autism, etc.)	3.07	.665
5 There is a manual for preschool teachers to follow in identifying children with special needs	1.62	.968
6 Preschool teachers rely on past experience to identify children with special needs	3.08	.806
7 Children with special needs are identified through their class participation	3.09	.636
8 Preschool teachers rely on monitoring to identify children with special needs	3.28	.622
9 Children with special needs can be identified through their speech (language) and relations with other children	3.26	.484
10 Regular assessment is required for proper identification of children with special needs	3.49	.626
11 Ability to provide intervention for children with special needs is a requirement for preschool teachers	2.60	.841
12 Preschool teachers have the required skill to provide intervention for children with special needs	2.34	.838
13 There are enough sources of assistance to provide intervention for children with special needs	1.88	1.094
14 Preschool teachers are supposed to refer children with special needs for further intervention	3.40	.933
15 Additional knowledge are required for effective provision of intervention	3.34	.854
16 Different form of instruction is required for children with special needs	3.23	.600
17 Intervention must focus on the needs to the children with special needs	3.26	.648
18 Preschool teachers work with other professionals to provide intervention for children with special needs	3.29	.668
Total	53.49	4.67

Source: Field survey (2021)

N= 144

The results on Table 6 reveal preschool teachers' knowledge in early identification and intervention for children with special educational needs and disability. From the average score of 45, and from the mean score of preschool teachers involved in the study ($M= 53.49$, $SD= 4.67$), it can be deduced that generally, preschool teachers in KEEA have above average knowledge in identifying pre-schoolers with SEND. Thus, teachers are equipped with the necessary information needed in identifying children with special educational needs and disabilities, as well as all the various procedures teachers have to go through to ensure early and proper intervention for these students are available.

Research Question 2: What steps do preschools teachers use in identifying children with SEND in the KEEA Municipality?

In this regard, the researcher aimed at finding out from the teachers the procedure(s) which they use in identifying children with special educational needs and disabilities. Presumably, teachers and parents are mostly seen as key agents when it comes to identifying children with special educational needs and disabilities even though they do not have the qualification in pronouncing any condition on any child. From the transcribed data, it was obvious that the commonest means or procedure in identifying children with special educational needs and disabilities was through observation, and checklist.

Observation

Majority of the participants were of the view that since they are not qualified to label any condition on any child, their only means of identifying children with special educational needs and disabilities as teachers is through

observation or observing the children in their various classrooms. Teachers observe the children in their custody to ascertain whether they require special needs services or special attention. Excerpts from one of the participants responses are captured below:

Normally, what I do is maybe through observation, I observe the child's activities, and then maybe I compare it with the norm. Moreover, if I see that the child is delaying or is lacking in a certain area, then maybe I will know that the child needs a special attention and sometimes too when the child is admitted, and the information given can be relied on. Maybe the child has already been diagnosed of having maybe a visual impairment or maybe having a hearing problem. Once they bring their medical report, you will be able to know that there is a problem of a child from the start before you start the admission (Teacher 1).

In similar vein, a participant reiterated that observation is the means through which children with special educational needs and disabilities are identified in the classroom setting. Having been in the classroom for some time, they are able to figure out a child with special educational needs.

Teacher 2 had this to say:

As for me, I do that through observation. I try to observe how the child behaves, how the child takes turns, you know... there are some children who does not know how to take turns. So, we observed that for some time because you know you can't just observe that once and say this child

has a special need, so it's should be a continuous something, before you can even suspect. And you can't even conclude on your own as a teacher that, this child is a child with special needs. So, after this, we need to we try to write them down. After that, we inform the headmaster that maybe this is what I am seeing in this child, so maybe the child needs other observation, then we informed a special needs coordinator in the districts for him or her to come for inspection or observation, because that is his main field. So, he may be able to tell whether it is true or it's just something normal.

Checklist

Some other teachers resorted to using checklist to identify children with special educational needs and disabilities. They prepare a checklist to monitor all aspects of the child's development after they have observed that a particular child is deviating from the norm. Excerpts from the participants responses are as follows:

Actually, it's not easy to identify if a child has a special need in your class since it's not really your field, but i normally do it by normal observation of the child and if I find something unusual, I then prepare a checklist to monitor all that he or she does. I do that in relation to all the activities, that is; their exercises, writing, communication, that he or she does in the class, before I can conclude. For example, if a child

keeps on writing some letters upside-down...then you need to pay attention to that child.

(Teacher 3).

This is what **teacher 5** also said about using checklist to identify children with special educational needs and disabilities in his classroom.

Oh, okay, so you see with these children, and because we are not a special school sometimes you see that a child will be deviating from the norm... for instance, if you are teaching mathematics in class the child may find it very difficult to understand the concepts been introduced in the classroom or not even able to understand it at all. So, I prepare a checklist to check all the areas of aspect on development, in this way, I know, that maybe he or she is facing challenges with this or that.

It is evident from the participants that observation and checklist were predominantly the techniques through which children with special educational needs are identified. In the social sciences, observation is a technique for gathering information about people, processes, and cultures. Observation, particularly participant observation, has been a hallmark of much of the research done in anthropological and sociological studies, and is a common ethnographic methodological approach (Kawulich, 2012). It's also a tool that teacher researchers in the classroom, social workers in community settings, and psychologists documenting human behaviour use on a regular basis to collect data (Kawulich, 2012). It is no wonder the participants in this study

narrated that observation and checklist are the key means through which children with SEND are identified in the classroom setting.

McIntosh, Vaughn, Schumm, Haager, and Lee (1993) in their study, 'observations of students with learning disabilities in general education classrooms', examined 60 general education teachers' classrooms, K-12, that included students with learning disabilities. By means of observation, the study revealed that it is the major way of identifying children with special needs. Mensah and Badu-Shayar (2016), worked on identification of special educational needs for early childhood inclusive education in Ghana. The study identified mainly that early identification of at-risk factors for disabilities are ignored and there is minimal or no collaboration in the assessment procedures for learners

Research Question 3: What steps are involved in the early educational interventions given to children with special educational needs and disabilities in the KEEA Municipality?

Children with special needs require unique intervention strategies as they enter infant care and preschool environments. By this assertion, the researcher was interested in finding out from the teachers the approaches and procedures used in giving early intervention to children with special needs. From their narration, it emerged that these teachers employed various early intervention strategies, which included:

Communication and Collaboration

It emerged from the data that teachers mostly use communication and collaboration as an early intervention strategy for children with SEND. Communicating to the parents of their children's condition is the first step that

teachers employ and later collaborate with other professionals giving interventions to children with SEND. Teachers probably have to talk to head teachers for them to talk to parents because they may be ignorant of some vital information about the children. Since parents have the case history of their children, they should be in good positions to share with professionals. It is therefore not out of place for teachers to communicate to the parents of children with special educational needs. Excerpts from participants' responses are captured below;

...I first communicate with the head for him to talk to the child's parents. Maybe the (parents) are not aware of the child's condition and ask them to refer the child to the hospital...and if truly there is a problem, some recommendations will be made by the doctor so that we teachers can also follow. We also collaborate with other professionals like the special education coordinator, the child's doctors, parents and other stakeholders to plan for the child... (Teacher 6).

Teacher 13 added that he advises the parents and look out for hospitals and non-governmental organizations, (NGOs) which can support the parents financially. He added that he collaborates with different stakeholders to be able to give the needed support for the child and parents.

... I talk to the parents and search for NOGs and other agencies who can help the child and her parents. In doing this, I collaborate with doctors and other stakeholders to draw

a plan on how the child can cope in the classroom with her condition... (Teacher 13).

It is evident that communication and collaboration form part of the strategy used by teachers to ameliorate or help children with SEND and their parents.

Accommodation and Adaptation

It emerged from the data that, a good number of the teachers used accommodation and adaptation strategies as a way of giving intervention to children with SEND in the classroom. Here is an excerpt from the responses.

... for the children with special educational needs and disabilities in the class, I normally break the curriculum content to be taught down, to their level for them to understand easily...also, children who are intellectually disabled are enabled to complete tests, classwork, assignments like their peers but with a change in setting, timing, scheduling, e.t.c ... (Teacher 6).

Another participant also disclosed this;

...also, I sometimes amend the curriculum content to suit the need of the child with special needs based on his condition and some recommendations from other stakeholders. I do this so that the child can also feel included in the classroom...

(Teacher 8).

It is evident that the teachers use accommodation and adaptation strategies as one of the procedures for giving intervention to children with special educational needs and disabilities.

Advocacy and Child Protection

Some of the participants resorted to advocacy and child protection. Often, teachers and other persons have less knowledge as well as some negative perception about children with special educational needs and disabilities. Due to this, children with SEND suffer from social stigmatization and as a result some teachers and learners do not relate positively with them. Some teachers serve as advocates and child protection agents to protect children with SEND in the schools. Excerpts from the interview are captured below.

...in my school, I serve as an advocate for children with special educational needs and disabilities especially the child in my class. I discuss the nature of his condition with other teachers to make them understand that, he can do a lot of things... so they shouldn't neglect him when they are teaching or when they allow other children to engage in an activity... (Teacher 2).

Another participant also added that...

...mostly, I talk to other teachers and learners about the right to protect children with special needs by discouraging bullying, discrimination and isolation... (Teacher 6).

Research question 4: What is the level of parental involvement in the identification and intervention process of children with SEND in the KEEA Municipality?

Parents were interviewed on steps in identifying and intervention of children with special educational needs and disabilities. Parents are regarded

as one of the key agents when it comes to raising and socializing children. The few parents who participated in this study are of the view that they identified children with special educational needs and disabilities through the following:

Observation

It emerged from the interview that, a number of the parents identified their child with SEND through observation. Parents indicated that they were limited or faced difficulty in identifying their children. They however observed the child's developmental milestone. If at certain ages the child is unable to perform some developmental tasks, they began to be suspicious. Excerpts from the transcribed data are below:

...I observe him for some time and realized he was not developing as my other children, so I discussed it with a friend... (Parent 7)

Another parent also said this;

...As a parent, I know how my child needs to develop, so when I he was about two (2) years and he wasn't walking, I knew that something was wrong... (Parent 5)

Deviation

It emerged from the data that, some parents identify children with special educational needs and disabilities by looking out for some deviations in their child's development and compare it with the norm.

Excerpts from the interview are captured below.

... I have not given birth to only one child, so I know that at this point in time, my child should be able to do this. Similar to other family members, they know that a child maybe a

particular age...say, three years, should be able to say certain words. So when at that point, I am not seeing those signs in my child, then I begin to think what is wrong? Because I know that every...let me use this word, 'normal child' should maybe say some words by age two...

(Parent 3)

It is evident that, parents used observation and checking out for deviations as ways to identify their children with special educational needs and disabilities.

Seeking Help from Professionals

A number of parents from the interview said, they turn to seek professional help as a way of giving intervention to their children with SEND.

...Every parent is concern about their children's wellbeing so if your child is not behaving or developing as other children, then you need to be alarmed. With my child, from the very beginning, I realized that she could not really see well...so about 6 months to 1 year..., my wife and I decided to see the doctor for medical care... (Parent 15).

Another parent corroborated what the previous parent had said with regards to the intervention the give children with SEND. This parent indicated that....

...well, with my child... I had to talk a teacher at my church and he connected me to some NGOs who took my child to the hospital... (Parent 10).

Observation and deviation of developmental delays have been the major means through which most parents use in identifying children with SEND, and later seeking help from professional because probably it was physical attribute that can easily be seen and identified. It was not surprising parents' narration of how children with special educational needs are identified through the deviations that characterised their children. It is common notion that early detection of developmental abnormalities in young children allows for both preventive and therapeutic methods, and is an important step in resolving the issues. In the developed countries, the early detection of developmental difficulties is possible because developmental monitoring is an integral part of healthcare encounters (Blair & Hall, 2006; Davis & Tsiantis, 2005; Earls & Hay, 2006; Katz et al., 2002; McKay, 2006; Regalado & Halfon 2001). However, in developing countries like Ghana, detection of children with special needs and for that matter those with developmental delays or challenges is difficult.

Challenges encountered by parents in identifying children with special needs

Parents narrated the challenges that they are confronted with when it comes to identifying the children with special educational needs and disabilities. The data suggests that they have difficulty regarding the knowledge in identifying children with special educational needs and disabilities.

Inadequate knowledge

On the part of the parents, they do not have enough expertise and knowledge in doing early identification of children with special educational

needs and disabilities. Parents mostly do not have any specialized training to identify children with such conditions. Excerpts from the parents' responses are captured below:

The specific challenge I faced, was the lack of knowledge in the area. I know that if I have had some form of education about this sickness from the beginning, I would had gotten help for my child as early as possible (Parent 7).

Another parent reiterated that even though she lacked the requisite knowledge, she was trying her best to help her child just that she did not know if her effort was enough to bring the help needed by their children. Her excerpts are

I have no knowledge when it comes to special education. So though I am trying my best, but sometimes I don't know whether my best is even sufficient. Because I do not have any notes on what specific activities that I can also take my children through. Or when he comes back from school, he comes home with assignments and I think sometimes how to help my child come out or solve those assignment becomes a problem because I find it difficult communicating with him even though is my job but it's quite challenging, and I don't know the best way to go about it (Parent 8).

Discussion of Findings

Teachers' knowledge in identification and intervention of children with SEND

As part of the objectives of this study, there was the need to examine the knowledge level of pre-school teachers with respect to identifying and providing intervention for children with special needs. From the results, it was recognized that pre-school teachers in the KEEA municipality had above average knowledge in early identification and intervention for children with special educational needs and disabilities. It can be deduced that pre-school teachers in KEEA are able to effectively identify children with developmental and learning problems based on their high level of knowledge. With this knowledge, is it possible that teachers are able to look out for certain deviations and problem areas that require additional attention. There is a chance that the educational qualification and the years of working experience of the teachers involved in the study account for the above average knowledge in early identification and intervention.

Previous research by Buell et al. (1999) which sought to ascertain the knowledge and perceptions of general education teachers and special education teachers also outline similar findings. Buell et al. (1999) state that special education teachers are found to rate more knowledgeable in skills used in identifying and providing intervention to students with special education needs and disability than general education teachers. This is backed by the work of Florian (2008) who specifically looked at the notion of specialist's knowledge among teachers and the roles staff have adapted to working with children with special educational needs and disabilities in the mainstream

settings. Although Florian (2008) notes that teachers have above average knowledge in early identification, Florian (2008) suggests that teachers need more knowledge in using specific instructional methods to identifying and providing intervention for learning difficulties.

Though the studies by Buell et al. (1999) and Florian (2008) communicate similar findings by establishing that pre-school teachers have adequate knowledge in identifying children with SEND, there are some studies that provide divergent findings. Paramount among these conflicting finding is the research done by Agbenyega and Kliboth (2014) on early childhood teachers' knowledge of inclusive education and process of identifying children with SEND. From Agbenyega and Kliboth's (2014) study, it was found that majority of teachers have low knowledge in procedures to identify and provide intervention for children with special educational needs and disabilities. Agbenyega and Kliboth (2014) relate this to the fact that teachers do not have an academic qualification in special education but are teaching children with special needs and disabilities as an indication for the low knowledge. O'connor et al. (2016) like Agbenyega and Kliboth (2014) also opine that teachers lack essential knowledge and understanding about the laws that regulate the procedures in identifying and providing intervention for students with special education needs and disability. However, they do not relate the lack of knowledge to the qualification of the teacher but to the lack of appropriate and well documented procedures in identifying children with special needs.

The differences between the findings of this study and those of previous studies by O'connor et al. (2016) and Agbenyega and Kliboth (2014)

can be related to clear reasons like inadequate qualification of teachers as outlined by Agbenyega and Kliboth (2014). There is also a chance that the inconsistencies in the findings are due to the differences in how the knowledge in early identification were measured. This study applied a quantitative approach to understanding the knowledge of teachers, while O'Connor et al. (2016) and Agbenyega and Kliboth (2014) applied qualitative approaches to measuring the knowledge of teachers with respect to early identification of children with SEND. Also, certain contextual factors (study area) could account for the difference in the research findings.

Procedures involved in early identification of children with SEND

Another important objective of this study was to explore procedures pre-school teachers apply in early identification of children with SEND. The findings from the qualitative analysis reveal that most of the respondents are of the view that since they are not qualified to label any condition of disability, the only means of identifying children with SEND as teachers is through observation and preparing checklist for children in their various classrooms. Thus, observation and checklist were the major and recurring procedures used in identifying children with SEND. Observation is widely regarded as one of the most basic yet efficient methods of assessing the development of young children. Observing a child by an early childhood, an educator starts by taking note of how the youngster acts, learns, reacts to new situations, and interacts with others. After that, an instructor uses this knowledge to build activities that promote skill growth, document skill success, and then reflect and analyse those skills. Also, checklist can be prepared by taking into consideration all the developmental and learning aspects of the child and monitor them to get

the best results. Children with developmental and learning issues might be identified through the use of checklist for proper monitoring.

In a study, Sonnander (2000) reported that sensitivity and specificity through observation of children learning and play activities are acceptable ways for developmental screening which were performed among the pre-school years. About 70% to 80% of early childhood educators specifically rely on observation as a means of identifying children with SEND. Also, Vaughn and Fuchs (2003) in a study “redefining learning disabilities as inadequate response to instruction: the promise and the potential problems” discussed the response to instruction approach to identifying learning disabilities. Vaughn and Fuchs (2003) employing a qualitative approach explored questions that may be of concern to using response to instruction approach to identifying learning disabilities such as the need for observation and assessment methods.

It appears that there are a lot of studies that agree that observation is important in being able to identify children with SEND. Vaughn et al. (2003) also conducted a study using response to instruction model as a means of identifying students with learning (specifically, reading) disabilities. After observation, the researchers were able to differentiate children with reading difficulties from those who never met the criteria. They were identified as at risk of having reading/learning disability. This goes to buttress the idea that observation serves a critical approach to identifying children with SEND. Van Der Heyden et al. (2007) also conducted a multi-year evaluation of the effects of a response to intervention model on identification of children with SEND. From the report of Van Der Heyden et al. (2007) 71% of teachers and educators rely on their past experience through observation in order to identify

children who have exceptional learning difficulties as well as those who are gifted and talented. Jenkins and Johnson's (2007) also confirm this finding by stressing that 77% to 91% always rely on individual and group observation to identify children who require additional attention and support.

By observing children as they explore, play and learn, practitioners can ensure that a child's development is at the expected stage, whether the environment and resources (toys or equipment) are stimulating their development, and what future support the child will need in order to gain new interests, skills and knowledge. Consistent monitoring and reviewing documented observations to make sure children are at the expected stage of development. If there is an issue, observation quickly identifies the area or areas the child is struggling with, in order to be able to address these issues and ensure the child is getting suitable support.

Procedures involved in early educational interventions given to children with SEND

It is necessary that after identifying children with special educational needs and disabilities, there should be some form of intervention to help them perform regardless of challenges and difficulties. Thus, as part of the aims of this study it was imperative to find out the procedures applied during early intervention for children with SEND. It emerged that teachers mostly use communication and collaboration as a procedure of early intervention for children with SEND. Communicating to the parents of their children's condition is the first step that teachers employ and later on collaborated with other professional. Furthermore, some of the participants also use accommodation and adaptation strategies for intervention in the classroom.

Lastly, some teachers serve as advocates and child protection agents to protect children with SEND from bully and discriminations. Clearly the findings indicate that these strategies are key procedures pre-school teachers go through when providing intervention for children with SEND.

The findings from this study are in agreement with the findings of Algozzine, Browder, Karvonen, Test and Woods (2001) who conducted a study on the effects of interventions to promote self-determination for the individuals with disabilities. From their perspective, Algozzine et al. (2001) believe that communication with necessary stakeholders in a child's education is necessary when developing intervention strategies for children with special needs. This was further confirmed by Abdullah, Abdullah, Bari and Yasin (2016) who conducted a study to explore the practice of implementation of early intervention preschool special education towards preparation for school. The findings showed that there are seven themes identify practices affecting the implementation of early intervention teachers' understanding of early intervention, early intervention program implementation practices, Preschool Special Education curriculum, teacher recruitment, infrastructure, collaboration and monitoring. It was also revealed that effective communication and collaboration among teachers, parents and other professionals is a key part of ensuring that intervention for children with SEND is effective and well planned.

The findings of this study are in agreement with the findings of Nkomo and Dube (2022) who conducted a study on ways in which the unique needs of different learners in an African context can be effectively met through adaptation, accommodation, and modification. The findings show that,

adaptation and accommodation strategies are one of the best ways the learners with physical disabilities, intellectual disabilities, visual loss, hearing loss, learning disabilities, emotional and behavioural disorders, communication and speech disorders can effectively learn in the inclusive classroom. This is further confirmed by Gal, Schreur and Engel-Yeger (2010) who conducted a study on the importance of preschool teachers' attitudes as the human environment factor that may facilitate inclusion of children with disability, and teachers' major concerns about environmental accommodations that inclusion implies. They found that the teachers' requirements for accommodations also highly correlated with environmental working conditions (e.g., working hours, number of children). Teachers were most concerned about accommodations for children with potential behaviour problems.

Proctor and Niemeyer (2001) also conducted a study on pre-service teacher beliefs about inclusion and implications for early intervention educators. Some beliefs were found during the group focus interview and initial individual interview. One of those beliefs is advocacy. The study found that student teachers believed part of the role of teaching young children with special needs is being their advocate. Students seemed to believe that inclusion requires them to educate those around them about inclusion. Also, they are to protect the rights of children with special educational needs and disabilities in the inclusive classroom.

Communication and collaboration, accommodation and adaptation, and advocacy and child protections are key strategies in the intervention given to children with special educational needs and disabilities. For a child with

SEND to be able to feel confident in the inclusive classroom, these procedures and strategies are needed to enable that.

Parental involvement in the identification and intervention process

The final objective of the study focused on the extent to which parents are involved in early identification and intervention of their wards with SEND. From the findings, parents do not have enough expertise and knowledge in doing early identification of children with SEND. The few parents who participated in this study are of the view that they identify children with SEND by looking at how the child/children deviate from the norm. Parents mostly are active part of the identification process although they do not have any specialized training to identify children with such conditions. The identification and intervention procedures to students with special educational needs and disabilities will be inconclusive without parents' involvement in the process, hence the need to give them training to enable them identify and give intervention

The findings from this study agree with that of Calderon (2000) who conducted a study on "parental involvement in deaf children's education programmes as a predictor of child's language, early reading and social emotional development". The study assessed the impact of school-based teacher-rated parental involvement on possible child outcomes in the areas of language development, early reading skills, and positive and negative assessments of socio-emotional development and found that even though parental involvement in the child's school-based intervention programme has positive impact on the child's improvement, parent's communication skills

contribute more to the child's language development and academic development.

Senechal and LeFevre (2002) also who conducted a five-year longitudinal study on "parental involvement in the development of children's reading skill also revealed findings that are consistent with the findings of this study. Senechal and LeFevre (2002) indicated that parental involvement in teaching their children how to read and write influenced children's early development in literacy skills. The results established a relationship between children's exposure to books and development of vocabulary and listening comprehensive skills and their impact on children's ability to read. In the same vein, Spann, Kohler and Soensksen (2003) also concurred with the findings of this study through "examining parent's involvement in and perceptions of special education services". The findings indicated that majority of children spent their day in school and received intervention services with their parents being heavily involved; however, parents were of the view that their priorities and pressing needs for their children were not being met.

Burke (2013) also established the importance of improving parental involvement. In a study "Improving Parental Involvement: Training Special Education Advocates", Burke (2013) posited that parents of children with special educational needs have a better understanding of special educational system and secure appropriate educational intervention services for their children with disabilities. The study explored the efficacy of two distinctive advocacy programmes; "the special education advocacy training and the volunteer advocacy project on parental involvement in the intervention

services provided for their children with special education needs and disabilities.

Parents' involvement with the identification and intervention process provided for their children with special educational needs and disabilities has been proven to have some significance. From this study it is clear enough that due to the concern of parents in relation to the education and developmental progress of their wards, parents were actively involved in identifying and assisting in the intervention process. The findings of this study are consistent with other studies that also focused on parental involvement and how best parents can play their role in helping their children with SEND. This is not surprising since most parents are likely to show some form of concern for the educational well-being of their children irrespective of their challenges.

Summary

This chapter presented the results and findings of the study from the data gathered from the field. The results reveal that pre-school teachers have adequate knowledge in identifying children with SEND. It was also found that teachers rely heavily on observation in their process of identifying children who require special attention. Furthermore, the results reveal that major intervention procedures include communication and collaboration, accommodation and adaptation, and advocacy and child protection. Finally, the findings support that, parents are involved in the identification and intervention process by looking out for deviation their children may have although they do not possess adequate knowledge in providing interventions. The findings of the study are discussed in relation to previous research in order to outline areas of consistency and inconsistencies.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Overview

This study was driven by the overall purpose of exploring the procedures used by preschool teachers in EII for children with SEND in preschools in the KEEA Municipality. Precisely, the study:

1. Find out the level of preschool teachers' knowledge in the identification and intervention procedures of children with SEND in the KEEA Municipality.
2. Find out the steps preschool teachers use in identifying children with SEND in the KEEA Municipality.
3. Find out the steps involved in the early educational interventions given to children with SEND in the KEEA Municipality.
4. Find out the level of parental involvement in the identification and intervention process of children with SEND in the KEEA Municipality.

The study applied a multiple method research design. The study applied the census technique to include all 168 pre-school teachers in the KEEA district. Out of all the 168 potential participants, 144 teachers took part in the study. The study also purposively sampled 12 parents who have children with special educational needs and disabilities. Teachers who participated in the study were required to respond to an adapted 18-item questionnaire that measured their knowledge in early identification of children with special needs developed by Shari and Vranda (2015). Also, 12 teachers and 12 parents were interviewed in relation to the procedures involved in early identification and

intervention for children with special education needs. The interviews were conducted with the aid of a semi-structured interview guide, which was developed by the researcher based on previous literature. Since the study applied a multiple method research design, quantitative data collected was analysed using descriptive statistics, specifically means and standard deviations, while qualitative data was analysed using the thematic analysis based on the suggestions of Braun and Clark (2006).

Summary of Findings

The following were findings of the study:

1. Pre-school teachers in the Komenda Edina Eguafo Abriem Municipality have adequate knowledge in early identification and intervention for children with special educational needs and disability. This is related to the education qualification of teachers and thus implied that teachers are capable of applying their knowledge and experience and identifying at-risk children.
2. It was found that most pre-school teachers in KEEA relied on their observation skills and checklist in identifying children who required special education services. Based on observation, teachers were able to identify certain deviations in children during lesson and play periods. They also used checklist to check all the developmental aspects of the child.
3. Furthermore, the study revealed that teachers resorted to communication and collaboration, accommodation and adaptation, and advocacy and child protection during the intervention process. Thus, it was important for teachers to communicate and collaborate with other

professionals and stakeholders in giving the intervention, also teachers needed to accommodate and adapt lesson content, timing, assessment processes to suit children with special educational needs and disabilities. Lastly, teachers served as advocates and child protection agents who speak for children with SEND and also protect them against bully and discrimination.

4. Finally, it was found that parents were actively involved in the early intervention process. Thus, parents also looked for deviation in their children through observation and later seek help from professionals. However, it was revealed that some parents faced exceptional difficulties in the identification and intervention process due to inadequate knowledge in early identification and intervention.

Conclusions

Over the years, the focus of special education has been on early identification and provision of early intervention for children with special education needs. Thus, the focus has been on early childhood institution and educators to be at the forefront of this initiative. For early childhood educator and professional teachers to be able to identify children with unique issues and provide timely assistance and intervention, it is imperative for these professionals to possess the knowledge. Based on the findings of this study, the pre-school teachers in KEEA district can be said to have the required knowledge to identify children with unique education needs. The ample knowledge possessed by the pre-school teachers could be related to their educational qualification and experience. With the required knowledge, it is possible that pre-school teachers faced little or no difficulties in the noting and

understanding the difficulties presented by the children who require special attention.

Based on the findings of this research it can be concluded that observation and checklist are appropriate procedures for pre-school teachers to identify children with special educational needs and disabilities. Observation is frequently regarded as one of the most basic yet efficient methods of assessing the development of young children. Observing a child by an early childhood educator begins with taking note of how the child acts, learns, reacts to new situations, and interacts with others. After the observation, teachers then develop a checklist to monitor all other developmental aspects of the child. The professionals then use this information to construct activities that foster skill growth, document skill success, and then reflect and analyse those skills. Proper observation allows you to spot children who may be experiencing developmental or learning issues. Furthermore, in order to efficiently ensure the various steps are taken to provide required intervention for children with special needs after observation, it is necessary to communicate effectively with parents of children with special needs about the nature of the child's needs and also refer the child to appropriate professionals.

Over the years, parental involvement has been a key component in early identification and intervention. The extent of parental involvement offers an opportunity to explore steps and procedures that would be beneficial to children with special education needs. It can be stated that most parents have taken the responsibility of assisting in the identification of children with SEND. Parents just like teachers rely on observation of their wards in order to identify the peculiar problems they may have. Thus, parents mostly look out

for deviation in their children as compared to other children of the same age. In addition, they seek help from professionals. Irrespective of the fact that some parents can identify the uniqueness of their wards, the lack of adequate knowledge in effective identification seems to be a major challenge for parents.

Recommendations

Based on the findings of this study, it is recommended that:

1. Pre-school teachers should continue to enhance their knowledge in identifying children with special education needs. This is important in the sense that there are several impairments which have diverse effects on children, thus there is the need for teachers to improve their knowledge in identifying children with special educational needs and disabilities.
2. It is recommended that, preschool teachers apply other procedures like interviews, ecological assessment, work sample analysis, classroom base assessment in the identification of children with special educational needs and disabilities.
3. Again, pre-school teachers must apply other relevant procedure in providing intervention for children with special educational needs and disabilities. This should include proper evaluation of the difficulties of the child, making appropriate decision on whether the child is eligible for special attention and providing a well-structured individualized education plan for the child with special need.
4. Parents of children with and without special education needs should be educated on the things to look out for in their children in order to

effectively help in identification and intervention. This education could include the nature and characteristics of children with certain disabilities.

Suggestions for Further Research

1. This study only included pre-school teachers and parents of children with special education needs in the KEEA district, hence it is suggested that studies of this nature must be undertaken among pre-school teachers and parents in other parts of Ghana, so as to offer a broader picture from the Ghanaian perspective as well as national generalisation.
2. Researchers should also take into consideration other factors such as individual characteristics and expertise of parents and teachers, and how they can be helpful in identifying and assisting children with difficulties.
3. Future studies should also make an effort to apply longitudinal studies in examining the effectiveness of the intervention provided for children with special educational needs and disabilities.

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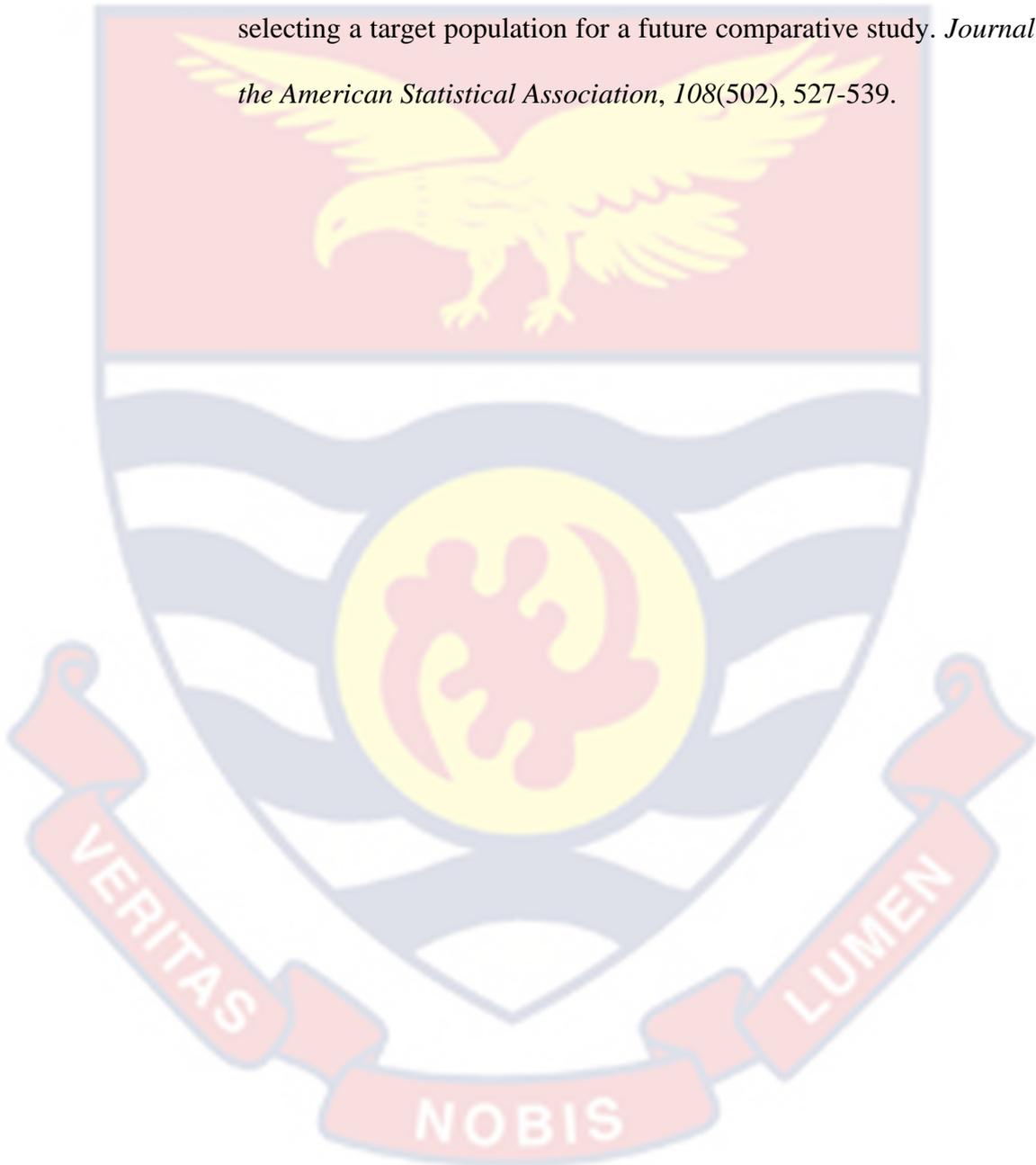
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APPENDICES

APPENDIX A

UNIVERSITY OF CAPE COAST

COLLEGE OF EDUCATION STUDIES

DEPARTMENT OF EDUCATION AND PSYCHOLOGY

This questionnaire is designed to gather information on the teachers' knowledge in early identification and intervention of children with special need. Information given is solely for academic purpose. Participation is voluntary, and also the respondent is assured that no information will be revealed to any third party without their consent. Thank you.

SECTION A

DEMOGRAPHIC INFORMATION

Please you are required to tick the appropriate responses.

1. **Gender**

Male [] Female []

2. **Age**.....

Less than 25 years

25-40 years

41years or more

3. **Highest Educational qualification**

Diploma [] Degree [] Other []

4. **Year of working experience**

Less than 1 year []

1 to 5 years []

6 to 10 years []

More than 10 years []

SECTION B

EARLY IDENTIFICATION AND INTERVENTION

Please indicate by ticking the extent to which you agree with the following statements

1= Strongly Disagree, 2= Disagree, 3= Agree, 4= Strongly Agree

	<i>Statements</i>	1	2	3	4
1	Ability to identify children with special need is important for preschool teachers.				
2	Preschool teachers have what it takes to be able to identify children with special needs.				
3	Preschool teachers have adequate knowledge in steps to identify children with special needs.				
4	Preschool teachers are able to identify children with impairments (hearing, visual, physical, autism, etc.).				
5	There is a manual for preschool teachers to follow in identifying children with special needs.				
6	Preschool teachers rely on past experience to identify children with special needs.				
7	Children with special needs are identified though their class participation.				
8	Preschool teachers rely on monitoring to identify children with special needs.				
9	Children with special needs can be identified through their speech (language) and relations with other children.				
10	Regular assessment is required with proper identification of children with special needs.				
11	Ability to provide intervention for children with special needs is a requirement for preschool teachers.				
12	Preschool teachers have the required skill to provide intervention for children with special needs.				
13	There are enough sources of assistance to provide intervention for children with special needs.				
14	Preschool teachers are supposed to refer children with special needs for further intervention.				
15	Additional knowledge are required for effective provision of intervention.				
16	Different forms of instruction are required for children with special needs.				
17	Intervention must focus on the needs of children with special needs.				
18	Preschool teachers work with other professionals to provide intervention for children with special needs.				

APPENDIX B**UNIVERSITY OF CAPE COAST****COLLEGE OF EDUCATION STUDIES****DEPARTMENT OF EDUCATION AND PSYCHOLOGY****SEMI-STRUCTURED INTERVIEW GUIDE FOR TEACHERS**

Dear sir/Madam

Thank you for agreeing to take part in this study which seek to gather information on the topic Early Identification and Intervention Procedures for Preschool Children With Special Educational Needs And Disabilities In The Komenda Edina Eguafu Abirem Municipality, Ghana.

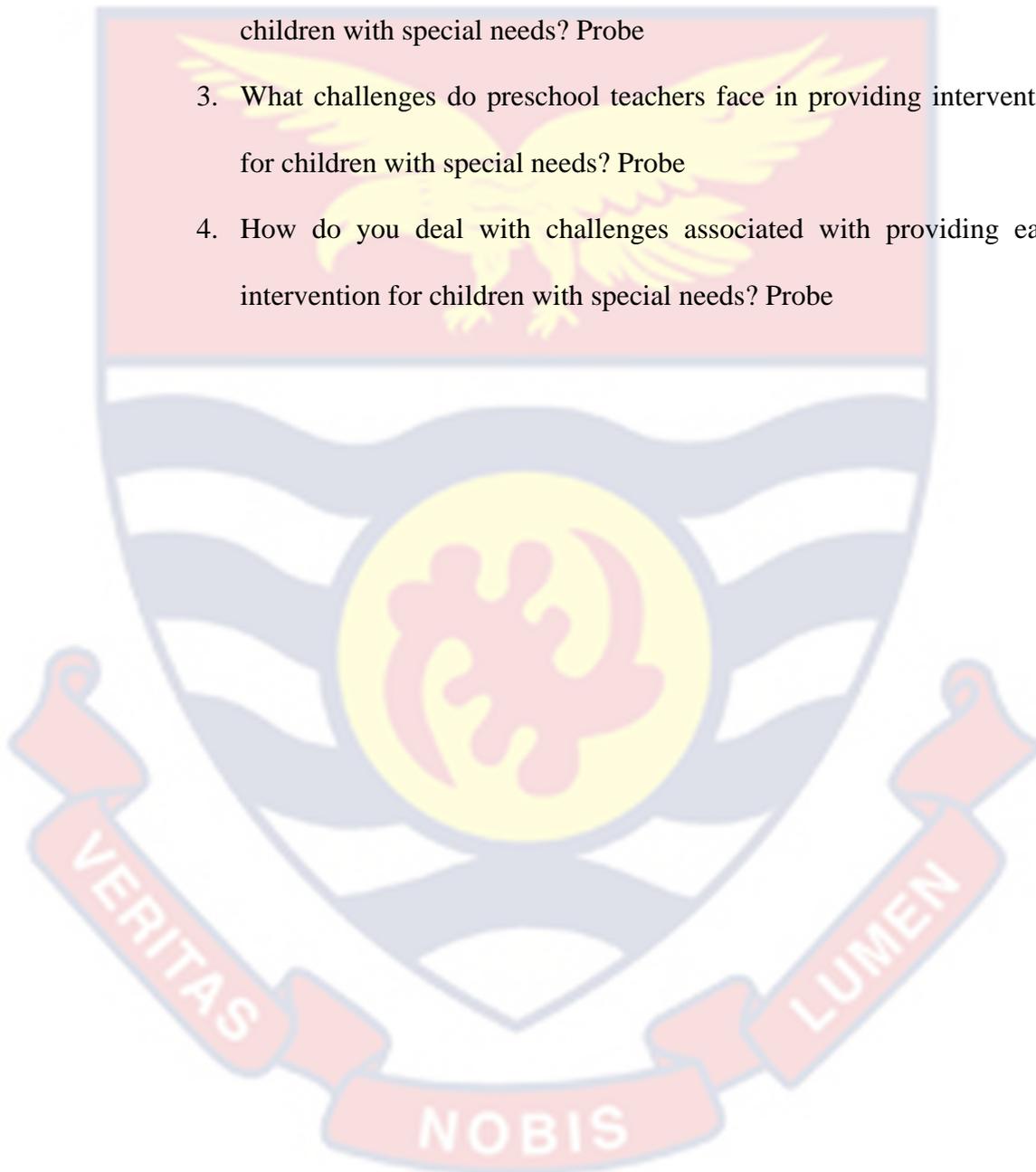
The study is primarily for academic work, and therefore you are assured of confidentiality and anonymity in all the information that you provide. Thank you once again for your time and participation.

Section A; Procedures preschools teachers use in identifying children with special needs

1. How important is early identification for preschool teachers? Probe
2. What are the procedures used in identifying children with special needs? Probe
3. What challenges do preschool teachers face in identifying children with special needs? Probe
4. How do you deal with challenges associated with identifying children with special needs? Probe

Section B; Procedures involved in the early educational interventions for children with special needs.

1. How important is early intervention for preschool teachers? Probe
2. What are the procedures teacher use in the intervention process of children with special needs? Probe
3. What challenges do preschool teachers face in providing intervention for children with special needs? Probe
4. How do you deal with challenges associated with providing early intervention for children with special needs? Probe



INTERVIEW GUIDE FOR PARENTS

Dear Sir/Madam,

Thank you for agreeing to take part in this study which seek to gather information on the topic; Early Identification and Intervention Procedures for Preschool Children with Special Educational Needs And Disabilities In The Komenda Edina Eguafu Abirem Municipality, Ghana.

The study is primarily for academic work, and therefore you are assured of confidentiality and anonymity in all the information that you provide. Thank you once again for your time and participation.

Parental involvement in the identification and intervention process for children with special needs

1. As a parent, are you able to identify if your child requires special needs services? Probe
2. How important is early identification and intervention to you as a parent? Probe
3. How do you collaborate with teachers in order to properly identify the special needs of children? Probe
4. What role do you play in providing intervention for your wards? Probe
5. What are the specific challenges you face as a parent in relation to early identification? Probe
6. What are the problems related to providing intervention for your ward? Probe
7. How do you ensure that your child receives proper intervention irrespective of these challenges? Probe.

APPENDIX C

UNIVERSITY OF CAPE COAST

COLLEGE OF EDUCATION STUDIES

DEPARTMENT OF EDUCATION AND PSYCHOLOGY

Names Of Private and Public Preschools in The KEEA

S/N	Name of school	Number of teachers	Children with SEND
1	Komenda College Basic	4	0
2	Ghazel M/A Primary	3	1
3	Komenda M/A Primary	4	0
4	Hope Academy School	5	3
5	Smarties International School	4	0
6	Aldegate Basic School	4	2
7	Entsua Mensah Preparatory School	5	2
8	St. Michael's Anglican Primary	3	1
9	Monica York Preparatory School	5	2
10	Dutch Komenda Catholic Basic	4	0
11	Kissi M/A Primary	4	0
12	Kissi Islamic Basic	4	1
13	Royal Achievers International School	5	0
14	Kissi Ebenezer Methodist Basic	2	2
15	Hollywood School	4	0
16	Kyiase M/A Basic	4	0
17	Ebenezer Preparation School	5	1
18	Christ Care Preparatory School	5	3
19	Theory Preparatory School	5	0
20	Emmanuel Preparatory School	5	1
21	Kwahiakrom M/A Basic	2	3
22	Dompoase M/A Basic	4	3
23	Ayensu M/A Basic	4	2
24	Ayensudo Ame Zion Basic	4	0
25	Aensudo Islamic	3	2
26	Little Shepherd International School	5	0
27	Atado M/A Basic	4	3
28	Annet International School	5	2
29	Bronikrom M/A Basic	4	1
30	Fawomaye Primary School	3	2
31	Saint George Catholic School	4	3
32	Saint Theressas Kwakye Preparatory	4	0
33	Faribel School Complex	5	3

34	Abrobiano M/A Basic	3	1
35	Abrobiano Islamic Basic	4	2
36	Bethel Moses	5	2
37	Brenu Akyinim M/A Basic	4	0
38	Sefwi M/A Basic	4	0
39	Ampenyi M/A Basic	2	4
40	Kafodzidzi M/A Basic	4	3
41	Besease M/A Basic	4	0
42	Obinyim Okyena M/A Basic	3	2



APPENDIX E

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

Our Ref:

Your Ref:

8th July, 2021

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

THESIS WORK
LETTER OF INTRODUCTION: DORIS ADU AGYEI

We introduce to you Miss Doris Adu Agyei, a student from the University of Cape Coast, Department of Education and Psychology. She is pursuing Master of Philosophy degree in and is currently at the thesis stage.

Miss Doris Adu Agyei is researching on the topic:

“Early Identification and Intervention for Children with Special Needs and Disabilities in the Komenda, Edina, Eguafo, Abirem Municipality, Ghana”.

She has opted to collect data at your institution/establishment for the Thesis work. We would be most grateful if you could provide her the opportunity for the study. Any information provided would be treated as strictly confidential.

Thank you.

Yours faithfully,

A handwritten signature in blue ink, appearing to read 'Ama Ocran'.

Ama Ocran (Mrs.)
Senior Administrative Assistant
For: **HEAD**

APPENDIX F

UNIVERSITY OF CAPE COAST
COLLEGE OF EDUCATION STUDIES
ETHICAL REVIEW BOARD

UNIVERSITY POST OFFICE
CAPE COAST, GHANA



Our Ref: CES-ERB/ucc-edu/vs/21-52

Date: 24th May, 2021

Your Ref:

Dear Sir/Madam,

ETHICAL REQUIREMENTS CLEARANCE FOR RESEARCH STUDY

Chairman, CES-ERB
Prof. J. A. Omotosho
jomotosho@ucc.edu.gh
0243784739

Vice-Chairman, CES-ERB
Prof. K. Edjah
kedjah@ucc.edu.gh
0244742357

Secretary, CES-ERB
Prof. Linda Dzama Forde
lforde@ucc.edu.gh
0244786680

The bearer, Doris Adu Agyei, Reg. No. EE/SDP/19/0003 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:

Early identification and intervention procedures for
children with special educational needs and
disabilities in the Komenda Feliha Gyuafo Abirem
Municipality, Ghana

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)