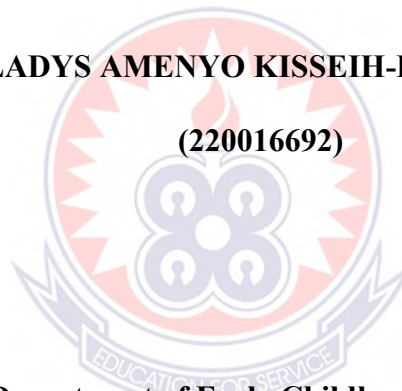


**UNIVERSITY OF EDUCATION, WINNEBA**

**EARLY CHILDHOOD INTERVENTION SERVICES FOR CHILDREN WITH  
SPECIAL NEEDS IN SELECTED EARLY CHILDHOOD CENTERS IN  
ABUAKWA TOWNSHIP**

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**A thesis in the Department of Early Childhood Education, Faculty of  
Applied Behavioural Sciences in Education, submitted to the School of  
Graduate Studies, in partial fulfilment  
of the requirements for the award of the degree of  
Master of Philosophy  
(Early Childhood Education)  
in the University of Education, Winneba**

**NOVEMBER, 2023**

## DECLARATION

### Student's Declaration

I, Gladys Amenyo Kisseih-Herchel, declare that this thesis, with the exception of quotations and references contained in published works, which have all been identified and duly acknowledged, is entirely my own original work and has not been submitted, either in part or whole, for another degree elsewhere.

Signature: .....

Date: .....

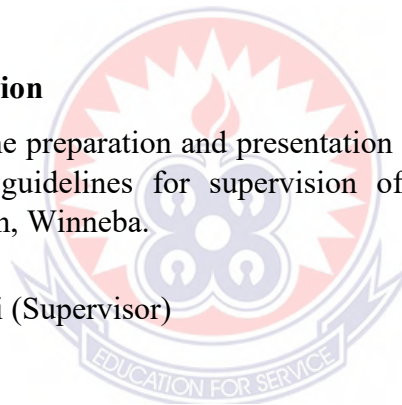
### Supervisor's Declaration

I hereby declare that the preparation and presentation of this work were supervised in accordance with the guidelines for supervision of thesis as laid down by the University of Education, Winneba.

Prof. Yaw Nyadu Offei (Supervisor)

Signature: .....

Date: .....



## **DEDICATION**

To my children.



## ACKNOWLEDGMENTS

I would like to express my sincere gratitude to my supervisor, Prof. Yaw Nyadu Offei, a Lecturer of the University of Education, Winneba, for his professional guidance, advice, encouragement, patience, and goodwill messages that kept me focused for the successful completion of this research work.

I am grateful to Mr. Andy Agordah and Dr. Eddie Herchel for their objective evaluations and comments to sharpen this work and their swift responses whenever I reach out to them for clarification as far as this project is concerned.

Other thanks go to the parents and teachers in Abuakwa Township for their immense cooperation and contribution during the data collection phase.



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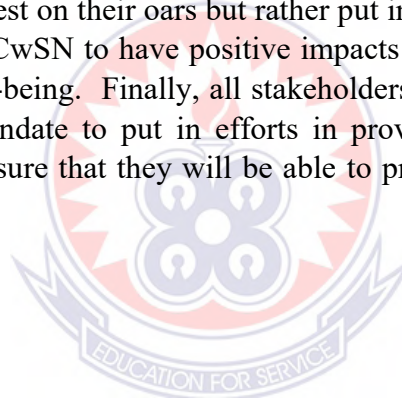
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## ABSTRACT

This study explored the early childhood intervention services for children with special needs in selected early childhood centers in Abuakwa Township. Critical Disability Theory and the social learning theory of Bandura (1986) were adopted for the study. Pragmatism rooted in the mixed method approach was selected for the study. Cross-sectional survey was the design used for the study. The target population comprised all teachers and parents of CwSN from five selected public early centers. A total of 65 teachers were randomly selected from the various early childhood center for the questionnaire administration. For the qualitative phase, 5 teachers and 5 parents were selected using purposive sampling. A structured questionnaire and semi-structured interview guide were the instruments used to gather data for the study. The quantitative data was analyzed using simple frequencies counts and percentages, means and standard deviations while the qualitative data was analyzed thematically. The findings established that both parties thus, parents and teachers render EI services to children with special needs to enhance their better well-being and development. In addition, the findings revealed that EI services for CwSN is drawn back by human and financial challenges. Therefore, it was recommended that parents and teachers in Abuakwa Township should not rest on their oars but rather put in more efforts in order to render the apt EI services to CwSN to have positive impacts on their psychological, mental, social, motor and well-being. Finally, all stakeholders in Abuakwa Township should make it their core mandate to put in efforts in providing the required human and capital resources to ensure that they will be able to provide the apt EI services to all early grade CwSN.



## CHAPTER ONE

### INRODUCTION

#### 1.1 Background to the Study

Children epitomize our future. Every parent yearn to see their children grow up to be independent and responsible. However, giving birth to a child with disability increases the prospect of provoking feelings of loss, helplessness and failure (Olsson & Hwang, 2018). Children with Special Needs (CwSN) are one of the most marginalized and excluded groups of children experiencing widespread violations of their rights. Their plight is further compounded by poverty, social isolation, humanitarian emergencies, lack of services, support, hostile and inaccessible environment (United Nations International Children's Emergency Fund [UNICEF], 2013).

According to World Disability Report (2010), globally, there is insufficient statistical information on CwSN and the services available to them. There have been many surveys to ascertain the prevalence of CwSN across the world with estimates ranging from 1% to 3% (Harris, 2006). Data from the National Health Interview Survey shows that an estimated 17% of children between three and seventeen have had at least one diagnosed developmental disability (Zablotsky et al., 2019) and approximately 13% of children under three have developmental delays that would make them eligible for services through the Individuals with Disabilities Education Act (IDEA) (Rosenberg et al., 2018).

With reference to education, the World Health Organization [WHO] (2010) defined CwSN as children with significantly physical disabilities and or reduced ability to understand new or complex information, to learn new skills (impaired intelligence)

and to cope independently (impaired social functioning) which started before adulthood and has a lasting effect on development. Yet, many eligible children do not receive early intervention services according to McManus et al. (2012) in 2006 early intervention receipt ranged from 23% to 83% across all states.

According to United Nations Educational, Scientific, and Cultural Organization [UNESCO] (2019), pre-school education that is able to accommodate young CwSN is not widely available in most countries although it helps to develop social skills and gives them experience of being part of a group and prepares them for school. Therefore, children with disabilities are extremely limited to be enrolled in pre-school education because of different issues such as lack of appropriate materials, lack of trained teachers, lack of parents' involvement, negative attitudes and also inaccessible environment. Efforts from different sectors to improve early childhood services and education are needed and these sectors need to work in collaboration with government (Republic of Ghana, 2021; UNESCO, 2019).

The Ministry of Education (MOE) sees education as a fundamental right. This position is strengthened in the 1992 fourth republican constitution of Ghana that facilitates government's commitment to achieving Universal Primary Education (UPE) as envisaged under the Education for All (EFA) and packaged in the Millennium Development Goals (MDGs). Early Childhood Education according to Benner (2013) is the instruction of children under the mandatory school age four and five kindergarten to eight years, which ensure cognitive stimulation and socialization. Schools have to value children and create activities that are meaningful for the children as it enriches their development for life. These ideas have turned into the underlying concept in Ghana of modern early childhood education as stated in the

Education Act 2008, Act 788 that states that, the system of education at the basic stage shall be organized in three progressive levels of which the two-year kindergarten education is an aspect of first level. Early childhood is the period from prenatal development to eight years of age (WHO, 2012). Programmes for Early Childhood Intervention (ECI), special education and inclusive education should be essential (Barón et al., 2019) and all work complementarily because one helps another to work successfully. Early Childhood Development (ECD) is a critical period that continues to impact human health and productivity throughout the lifetime.

Parents have serious responsibilities for providing these early intervention (EI) practices as children learn many skills from their families beginning from the moment they are born and especially until they become a part of different social environments (such as school) (Selimoğlu & Özdemir, 2018; Tunçeli, & Zembat, 2017). Meanwhile, CwSN are enrolled in inclusive early childhood programmes in which supports and services from professionals from varying fields, such as, early childhood educators, special educators, physical therapists, occupational therapists, and others become essential (Bruder, 2010). These professionals receive specified training that provides them with expertise in supporting development across multiple domains including, cognitive, motor, communication, and adaptive skills (Hyson & Tomlinson, 2014). Zucker (2010) posited that in preschool, special needs children need to learn vocabulary that would be useful when they enter primary and secondary school as they would learn more complex concept. However, besides the language, the special needs children also need to learn Mathematics; thus, the teachers could teach them to name the shapes, name the word to describe weight, height, time and distance.

Academic problem and development in oral language would happen if the children have limited vocabulary. The interaction between environmental (e.g., degree of schools involvement, adequate nutrition, care etc.) and genetic factors (e.g., temperament, abnormal hereditary genes, prenatal development) are believed to affect children's development (Bakersman-Kraneburg & Van-Ijzendoorn, 2017). Therefore, it is vital to provide interventions to support the development of children with special needs or these children's parents to ensure that these interventions reach them quickly. Disparities in receipt of EI have been found for some socio-economic, racial, and ethnic groups, and for some types of developmental vulnerability (McManus et al., 2012; Rosenberg et al., 2018).

Learners requiring special supports may include those with language impairments or those who are diagnosed with autism spectrum disorder, Down syndrome, and other physical, mental, and emotional exceptionalities (Gerber et al., 2022; Koegel, 2020). Recently, early intervention programmes have becoming increasingly family-centered to focus not only on the child's needs but on the family's needs as well (Tomasello et al., 2020). This means professionals working in these environments not only focus on the experience of the child but also how the child's exceptionality is affecting the family and they should cope (Tomasello et al., 2020).

EI for CwSN is a support programme for young children and their families that include health and social services in which families and field experts collaborate (Bari et al., 2016). EI can range in what they offer (i.e. full or half day, play, academic, social based etc.) and what types of resources are available for children (i.e., the support of psychologists, speech-language pathologists, occupational therapists, teachers etc.) (Koegel, 2020). Even though the programmes differ in content and

implementation, parental support (e.g., actively volunteering) and interest in the programme is usually required in order for the child to make significant progress (Cryer et al., 2022).

Failing to provide support services can result in negative population health, education and economic consequences that might otherwise be avoided (Binagwaho et al., 2016). UNICEF (2013) highlighted in its report that the first few years of a child's life are critical for development and that deprivation of nutrition, stimulation, and protection during this time can result in serious long-term damage. According to Walvoord (2010), the child as an individual will be diagnosed and assessed by a body of professionals (interdisciplinary approach) to arrive at an Individualized Educational Programme (IEP) to cater for the holistic needs of the child. Cohen and Spenciner (2017) requested a comprehensive form of diagnosis and assessment procedures targeted to meet diversity. Witt (2018) mentioned that a parent or guardian shall take advantage of the inclusive educational facilities to send the child with special needs to the appropriate education facility, or subject to availability of resources, make a request for the provision of the appropriate educational facility.

Early identification and intervention of children with special educational needs is absolutely key: the earlier a problem is identified, the better the outcomes of intervention. Because learning is a cumulative process, difficulties found earlier on if not attended to, can have a cascading effect on the rest of a child's life. Reynolds et al. (2014) posited that early identification and intervention usually refer to finding emotional, intellectual, behavioural and mental health concerns at the earliest age they appear. Unegbu (2012) posited that EI for CwSN is an essential contributor and catalyst for the development of a culture of positive attitudes towards children with

disability in a country like Nigeria and Ghana. As Ghana struggles towards attaining the quest for EFA and the MDGs, an integrated, inclusive and effective EI programme becomes inevitable for these children. This would provide mutual benefits for them, their parents and families, educators and professionals and the society at large (Unegbu 2012). EI programmes offered for CwSN such as boosting development of children, the active participation of parents within the process, reducing social problems in the country, and financial support contributes to children, families and countries in the short and long term (Diken et al., 2012; Kılıçkaya & Zelyurt, 2015).

EI programmes for CwSN supports them to achieve developmental and academic success similar to their same-aged peers (Eikeseth, 2018). The speech therapy helps the autistic children to understand and follow instructions after going through the treatment (Batool & Ijaz, 2015). In addition, the speech therapy services also can improve the interpersonal skills, psychological well-being of the children after going through the intervention (Roulstone et al., 2012). There is improvement in the motor skills, sensory processing, communication and interaction skills of the autistic kid through the occupational therapy as the kid will be able to socialize and play well with other children in school (Schaaf et al., 2012). Besides that, the beads technique and coloring method used to train the child's attention span also showed the improvements in the children's attention span (Sridevi & Arya, 2014). According to World Health Organization (2012), EI programmes could enhance the children's development and make them able to follow well and be effective in the future schooling.

EI programmes are considered successful when children's development progresses and positive feedback is given by teachers to their parents and other individuals

involved (Fantuzzo et al., 2016). Parents' views of EI can be used to better develop programmes and create an effective home-school collaboration system (Fantuzzo et al., 2016), since the outcomes for the child are more positive when family members are involved (Ronski et al., 2016). If educators participate in behaviours that will increase teacher-parent contact such as making monthly phone calls or setting meeting times, they will be more likely to increase engagement (McNaughton, 2014).

Generally, ECD interventions have an important role to play in improving the well-being of CwSN and their families (USAID, 2014) especially those that actively involve families by making improvements in a child's social and behavioural development (Koegel, 2020); communication, perception, and motor skills and a decrease in aberrant behaviours (Eikeseth, 2018) since many of these atypical behaviours commonly arise from an inability to communicate. The interventions offered in this process are aimed to support the development and health of CwSN to increase the existing competencies, to remove or reduce the limitations experienced and to improve parenting skills of their parents (Kılıçkaya & Zelyurt, 2015). In EI, which has a very important place in early childhood special education practices, the importance of parent-child interaction, providing education opportunities to families and empowering parents is emphasized (Aslan, 2015; Bailey et al., 2019).

Although studies show that EI programmes for CwSN offer positive long-term outcomes it is stated that different issues such as not providing EI services on time, delays in the diagnosis of children, insufficient communication between institutions, not informing parents about existing services, lack of social sensitivity regarding early intervention services continue in many countries (Aslan, 2015; Bari et al., 2016). Similarly, EI services are underpinned by a number of factors including the quality of

the parent-professional relationship, collaboration, support, access to information, and clarification of roles (Bridle & Mann, 2020; Carroll, 2021). Parents expressed feelings of pressure and guilt for not doing more for their child and lamented their role as an educator that threatened other parental roles (Bridle & Mann, 2020).

Gezahegne and Yinebeb (2011) also revealed that insufficient funding is the biggest drawback to the implementation of major programmes like inclusive education in many countries. Furthermore, challenges like in teachers' training programmes, teachers' attitudes, materials and equipment provision, are also factors that affect EI for CwSN. The study also revealed that the attitudes of the teachers were positively or negatively affected by the extent of a disability, either minor or complicated, in carrying out their duties diligently. Likewise, lack of special training and class size are the other challenges (Gezahegne & Yinebeb, 2011). Similarly, Peters (2023) carried out a comparative study on inclusive education between developing and developed countries on behalf of the World Bank. The author focused on attitudes of teachers in the classrooms ignoring other problems children with disabilities face in accessing education and found out that besides having necessary training skills attained from teacher training colleges; teachers must have a good will. Insufficient knowledge, expertise, experiences and training in the early intervention programmes are reported as the barriers in this programme (Bari et al., 2016).

Notwithstanding, if CwSN fail to receive or continue intervention, they may fail to thrive and their delays and/or difficulties can worsen (Head & Abbeduto, 2017). It is driven EI practices are implemented to meet not only the children's academic, social, emotional, and cultural needs, but the parents' needs as well (Blacklock et al., 2012). If parents see progress in their child after participating in an EI programme, they are

likely to be more involved with the programme (Blacklock et al., 2012). Improving parental satisfaction with the EI process will support the child in receiving the most effective, collaborative intervention possible (Bradshaw, 2013). Therefore, global efforts to provide inclusive and equitable education to all children countries around the world have established legal and policy foundations to support inclusion by validating the quality and effectiveness of services provided (UNESCO, 2019). Therefore, all countries regardless of their diverse cultures, political systems, resources, and general attitudes have made different decisions in developing and improving EI for CwSN within its means (Shonkoff & Meisels, 2020).

The background reveals that although early childhood intervention (EI) is globally recognized as a critical strategy for supporting children with special needs (CwSN), there remains a significant gap between the existence of EI frameworks and their effective implementation, especially in low- and middle-income contexts such as Ghana. International reports from UNESCO (2019), WHO (2010), and UNICEF (2013) highlight that despite the proven benefits of EI such as improved cognitive, social, motor, and communication skills; many children who qualify for these services do not receive them on time or at all. This gap is partly due to inadequate data on CwSN, delays in diagnosis, lack of trained personnel, negative societal attitudes, and insufficient infrastructure. In Ghana, while the Ministry of Education recognizes early childhood education as a fundamental right, actual service provision remains inconsistent, and many children with disabilities face barriers to accessing appropriate educational settings. These systemic deficiencies indicate a mismatch between policy intentions and practical realities, which sets the stage for the problem this study seeks to address.

The problem is further compounded by several interrelated challenges that hinder the effective implementation of EI services. At the institutional level, insufficient funding, lack of specialized training for teachers, inadequate learning materials, and poor intersectoral collaboration limit the availability and quality of services provided to CwSN (Gezahegne & Yinebeb, 2011; Bari et al., 2016). At the community and family levels, limited parental involvement, lack of awareness about existing services, and prevailing negative attitudes toward disability contribute to the marginalization of these children. Moreover, disparities in access to EI are evident across socioeconomic groups, leading to inequities in developmental outcomes (McManus et al., 2012). When early identification and intervention are delayed or absent, developmental difficulties can intensify, resulting in long-term educational, health, and social disadvantages for affected children (Reynolds et al., 2014).

This situation is problematic because the early years are a critical window for development, and missing this period can have lasting consequences for the child, the family, and society at large. Without timely and adequate intervention, CwSN are at risk of falling behind their peers academically and socially, perpetuating cycles of exclusion and underachievement (Eikeseth, 2018; UNICEF, 2013). Inadequate intervention also undermines Ghana's commitments to international goals such as Education for All (EFA) and the Sustainable Development Goals (SDGs), particularly Goal 4 on inclusive and equitable quality education. Thus, the core problem is not the absence of policies but the inadequate availability, rationale, and implementation of EI services for CwSN in early childhood centers. Addressing this problem is essential for ensuring that children with special needs in contexts like Abuakwa Township are not left behind in their foundational years of development.

## 1.2 Statement of the Problem

In September 2015, the United Nations (UN) General Assembly adopted new SDG as part of the “Transforming our world: The 2030 Agenda for Sustainable Development” (UNESCO, 2019). The SDG validates the work of early childhood professionals around the globe and sets core actions for EI services around the world. The fourth SDG is to ensure equitable and inclusive quality education to support early childhood development and to ensure lifelong learning. Target 4.2 states that by 2030 “all boys and girls will have access to quality early childhood development, care and pre-primary education, so that they will be ready for primary education” (UNESCO, 2019, p. 19). Meanwhile, estimates reveal that out of the over 200 million CwSN disabilities globally, almost 80% are from developing countries (Groce, 2023). The Global Burden of Disease Study reported that 93 million (5.1%) of all children live with a mild or severe disability whilst 13 million (0.7%) children live with severe difficulties (WHO, 2010). Despite the uncertainty of figures, it is undeniable that CwSN make a significant percentage of every society’s population. Amidst this gloom, Aito et al. (2015) projected that disability amongst children will increase in developing countries.

Meanwhile, CwSN are faced with countless barriers that threaten their very existence and participation in mainstream society within the Ghanaian setting. For instance, they are faced with numerous technical barriers ranging from delay in schooling, long slippery floors, bad lighting system, high water pumps, and washroom doors and among others. Further, they are undermined in humanitarian situations and are vulnerable to abuse, violence and exploitation (UNICEF, 2013).

The facts indicate that, of all the CwSN, only 10% are in school (UNESCO, 2019) and of this number only half who begin, complete primary education with many leaving after a short while because they are gaining little from the experience. Therefore, it can be empirically validate that only 5% of all CwSN worldwide have completed primary school (Peters, 2023). Indeed, children's developmental processes which are affected adversely during early childhood causes them to experience developmental delay, developmental deficiency, and/or risk (Temiz & Akman, 2015).

Notwithstanding, the United Nations Children's Emergency Fund [UNICEF] (2013, p.12) stated that "We are all born with equal rights. Regardless of our disabilities, we still have the right to be loved, to start our own family, to have access to good education and live a normal healthy lifestyle". This implies that CwSN deserve to be given the chance to grow, develop and enchanted but the reverse happens within most early childhood settings in Ghana despite the IDEA. The needs of CwSN can be complex in that one or more of the areas of can be affected and they may require interventions that access the knowledge of a number of professionals across a variety of disciplines (e.g., teachers, occupational therapists, physical therapists, speech-language pathologists) (Gerber et al., 2022). EI services are a range of different programmes that specially planned to help and support CwSN or any other specific health condition (WHO, 2012).

CwSN who undergo EI treatment show improvement in the self-care skills which help them to be independent in the future as the therapists apply natural settings and daily activities to train the kids (Sridevi & Arya, 2014). Sridevi and Arya (2014) found out that the EI programmes affects a mother with an autistic kid as well. Koegel (2020) suggested that the single most important precursor to success for students with autism

is language ability. EI programmes can help support children's language development that is fundamental to making strides in supporting the development of a child's social and intellectual abilities (Dawson et al., 2019).

Preliminary observations made by the researcher in most early childhood centers in Abuakwa Township are that, most of the teachers fail to provide the EI for CwSN as the Government of Ghana signaled per her quest to achieve the sustainable development goals. Upon the researcher's encounter with some of the educators, it came into light that they wished to embark on all the programmes to fulfil what the state mandates but they face a plethora of challenges owing to their withdrawals to some of these services including the inadequacy of teaching and learning materials, low cooperation from teachers, parents negative attitudes toward EI strategies, just to mention but a few. Meanwhile, EI for CwSN through education, supports, encouragement, and love from people around them have the potential and possibility to improve, develop, and shine bright in their future (UNICEF, 2013). Notwithstanding, the fact that the Republic of Ghana (2021) stated that interventions in the early years have the potential to remove negative trends and to provide young children with more opportunities and better outcomes in terms of access to education, quality of learning, physical growth and health, and, eventually, productivity, it has not achieved its core aim.

These delays in the early years for CwSN are costly to reverse later in life (Republic of Ghana, 2021). Learning outcomes for CwSN are often at risk when teachers lack appropriate training, and access to any form of support in the classroom (UNESCO, 2019). In addition, if CwSN and their families are not provided with timely and appropriate early intervention, support and protection, their difficulties can become

more severe often leading to lifetime consequences, increased poverty and profound exclusion (WHO, 2012).

Loh et al. (2017) also reported that there were also challenges of the shortage of speech-language therapists for CwSN. Ahmad et al. (2013) also found that in Malaysia that, there were only 1,395 occupational therapists among the 32 million population. Ward (2019) found that parents were not involved in goal setting for their child during the initial stages of attending a service. Lyons et al. (2010) in their qualitative study collected data pre and post therapy and found that professionals and parents need to co-construct a shared of reference to support collaboration for EI for CwSN. Therefore, for effective ECD programme for CwSN, education, sanitation, nutrition, health, and child protection are needed and all these services have to be interconnected (Groce, 2023).

Methodologically, previous studies on early childhood intervention (EI) for children with special needs have often relied heavily on quantitative surveys or large-scale statistical data, which, while useful, may overlook the nuanced experiences of stakeholders involved in implementing these services. For example, research by Guralnick (2019) and Hornby (2020) highlights the predominance of outcome-focused assessments, leaving limited space for context-specific, qualitative insights. There is a lack of qualitative, context-sensitive research that explores the actual availability, rationale, and challenges of EI services within early childhood centers in Ghana. This study addresses that gap by adopting a mixed approach to capture rich, descriptive insights from teachers, caregivers, and administrators, thereby providing a deeper understanding of the practical realities influencing EI implementation. Philosophically, many existing studies are grounded in positivist paradigms that focus

on objective measurements and generalized outcomes (Yin, 2018). In contrast, this study adopts a pragmatist philosophy, which allows for the exploration of multiple perspectives and subjective experiences of those directly involved in early intervention practices. This shift in philosophical orientation ensures that the study foregrounds human experiences and contextual understanding rather than solely relying on numerical trends.

In terms of population, most existing research focuses on national or regional data or targets policymakers and experts, with limited attention to early childhood educators and caregivers who work directly with children at the center level (Booth et al., 2021; Okyere & Addae, 2020). This study fills that population gap by focusing on teachers, caregivers, and administrators within selected early childhood centers, who are central to the daily implementation of EI services. The choice of Abuakwa Township as the study area is justified by its growing number of early childhood centers and its diverse population, which provides a relevant context for examining the provision of EI services. Additionally, the area has not been extensively studied in relation to early intervention, making it an ideal setting to generate new insights that can inform policy and practice at both the local and national levels (Ministry of Education [MoE], 2022).

Notwithstanding the significant roles EI plays in the lives of CwSN, it is particularly unclear with regards to which studies have been conducted within the nation using the pragmatist approach to explore the early intervention services for CwSN within the nation (see for instance Dan, 2019; Delali, 2018; Mantey, 2017; Wolf et al., 2019; Yaw, 2021). Therefore, it is empirical to validate that there is a loophole in literature with regards to this area in research within Ghana. This current study therefore, seeks to fill this literature lacuna.

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

The purpose of the study was to explore the early childhood intervention services for children with special needs in selected early childhood centers in Abuakwa Township.

### **1.4 Objectives of the Study**

Specifically, the study sought to:

1. Explore the early childhood intervention services available for children with special needs in Abuakwa Township.
2. Identify the rationale behind the early childhood intervention services provided for children with special needs in Abuakwa Township.
3. Ascertain the challenges hindering successful implementation of early childhood intervention services provided for children with special needs in Abuakwa Township.
4. Investigate the measures that can enhance fruitful implementation of early childhood intervention services provided for children with special needs in Abuakwa Township.

### **1.5 Research Questions**

The research questions that guided this study are as follows:

1. What are the early childhood intervention services available for children with special needs in Abuakwa Township?
2. What are the rationales behind early childhood intervention services provided for children with special needs in Abuakwa Township?
3. What challenges if any hinder successful implementation of early childhood intervention services provided for children with special needs in Abuakwa Township?

4. What measures are in place to enhance fruitful implementation of early childhood intervention services provided for children with special needs in Abuakwa Township?

### **1.6 Significance of the Study**

Theoretically, this study contributes to the growing body of knowledge on early childhood intervention (EI) for children with special needs (CwSN) by contextualizing global frameworks within the realities of early childhood centers in Abuakwa Township. While theories of inclusive education and early intervention emphasize the importance of early identification, multisectoral collaboration, and individualized support, there is limited empirical evidence on how these theoretical principles are operationalized in Ghanaian early childhood settings. By exploring the availability, rationale, challenges, and enhancement measures for EI services, the study bridges the gap between international theoretical models and local implementation. This contribution deepens the understanding of how early intervention theories manifest in resource-constrained contexts and provides a foundation for future research that seeks to adapt global frameworks to local realities.

Practically, the findings of this study are significant for educators, caregivers, parents, and service providers working with young children with special needs. By identifying the existing EI services and the challenges affecting their successful implementation, the study offers actionable insights for improving service delivery at the center level. Teachers and caregivers can use the findings to adopt more inclusive instructional practices, strengthen family–school partnerships, and integrate multidisciplinary support to enhance developmental outcomes. Parents and caregivers will also gain a better understanding of the importance of their involvement in EI programs and how their participation can positively influence their child’s learning and development.

Additionally, the study can guide capacity-building initiatives, including teacher training and resource allocation, to address gaps in current practices.

From a policy perspective, the study provides evidence-based recommendations that can inform the formulation and refinement of national and local policies on inclusive education and early childhood development. It aligns with Ghana's commitments to international frameworks such as the Education for All (EFA) goals and the Sustainable Development Goals (SDGs), particularly Goal 4 on inclusive and equitable quality education. Policymakers and educational authorities can use the findings to design targeted interventions, allocate resources more effectively, and strengthen monitoring systems for EI services. Furthermore, the study highlights the need for coordinated efforts between government, non-governmental organizations, and communities to ensure that EI services are accessible, timely, and responsive to the needs of children with disabilities. In this way, the study supports the development of policies that foster inclusive, equitable, and high-quality early childhood education for all learners.

### **1.7 Delimitations of the Study**

The study was delimited to exploring the early childhood intervention services for children with special needs in selected early childhood centers in Abuakwa Township. In addition, only parents/guardians and teachers of these learners were selected for the study. Finally, only the themes; Availability of Early Childhood Intervention Services, Rationales behind Early Childhood Intervention Services, Challenges Hindering Successful Early Childhood Intervention Services, and Measures to Enhance Fruitful Early Childhood Intervention Services were vividly investigated.

### **1.8 Limitations of the Study**

One limitation of this study is its focus on selected early childhood centers within Abuakwa Township, which may restrict the generalizability of the findings to other contexts in Ghana or beyond. Since the study is localized, variations in resources, teacher training, parental involvement, and policy implementation across different districts may not be fully captured. Additionally, the study relied on participants' responses and available documentation, which may be subject to biases such as selective reporting, limited recall, or personal perceptions.

Another limitation lies in the scope of the study, which primarily explored the availability, rationale, challenges, and measures for improving early childhood intervention services without conducting a longitudinal assessment of their effectiveness. As a result, the study does not provide long-term evidence of outcomes for children with special needs who benefit from these interventions. Moreover, resource constraints limited the extent to which other critical factors such as funding mechanisms, inter-agency collaboration, and cultural influences could be comprehensively examined.

### **1.9 Operational Definition of Terms**

In order to prevent uncertainty, disparity in terms meaning and thoughtfulness, the following terms are defined according to usage and meaning in this study.

**Attitude:** This is the tendency of an individual in Abuakwa Township to react positively or negatively toward CwSN.

**Children with Disability Special Needs:** These are infants or toddlers in Abuakwa Township living with one or more disabilities e.g. mental disability, hearing impairment, visual impairment, physical disability etc.

**Early Childhood Centers:** Institutions in Abuakwa Township that practice inclusive education.

**Early Intervention Services:** This comprises set of support, services and experiences rendered to CwSN in Abuakwa Township to prevent or lessen long-term problems as early as possible

**Parents:** Refers to individuals who gave birth to or nurtures and raises a child with special needs in Abuakwa Township.

**Special Needs:** This is a condition that restrict someone to perform a task or function because of impairment.

**Stakeholders:** All individuals in Abuakwa Township who can assist to make EI in the early childhood centers successful.

### **1.10 Organization of the Study**

The study covers five chapters. Chapter One presented the Introduction which is discussed under the following themes: Background to the Study, Statement of the Problem, Purpose of the Study and Research Objectives. Moreover, it discussed the Research Questions, Significance of the Study, Delimitations of the Study, Operational Definition of Terms, and Organization of the Study. Chapter Two presents the Theoretical, Conceptual and Empirical Review of Literature connected to the study. Chapter Three concentrated on the Research Methodology adopted for the study. It discussed the Research Philosophy, its Approach, Design, Population of the Study, Sample and Sampling Techniques, and Research Instruments. It further presented the Validity and Reliability of the Instruments, Trustworthiness of the Interview, Data Collection Procedures, Data Analysis Procedures, and Ethical Issues. Chapter Four presented the Results/Findings and its detailed Discussion. Finally, Chapter Five considered the Summary of the Study and its Key Findings,

Conclusions, Recommendations, Limitations of the Study, and Suggestions for Further Studies.



## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

The chapter focused on the review of the related literature for the study. It was reviewed under the following sub-headings:

- Theoretical Lens
- Children with Special Needs
- Concept of Early Intervention
- Policies of Early Childhood Intervention
- Early Intervention Practices
- Early Childhood Intervention Services
- Global Studies on Early Intervention Strategies
- Rationales behind Early Childhood Intervention Services
- Challenges Hindering Successful Early Childhood Intervention Services
- Measures to Enhance Fruitful Early Childhood Intervention Services
- Summary of Literature Review and Identified Gaps

#### **2.2 Theoretical Lens**

##### **2.2.1 Critical Disability Theory (CDT)**

CDT seeks to champion the transformation of societies (Hosking 2018). This theory emerged from critical theory that looks into the possibility of developing a systematic way of thinking where historical circumstances can be incorporated in order to challenge and address problems associated with unjust societies (Giroux, 2009). CDT asserts that encouraging the education of students with disabilities in the mainstream requires transformation of the environment in order to enable students who are

marginalized, stigmatized and discriminated against to participate in education (Hosking, 2018). CDT therefore, advocates for systemic changes in the social system (Schalk, 2017). In arguing for the use of CDT to guide discourses on disability issues, Bohman (2012) reported that the core of CDT is to explain what is wrong with the current social reality, identify actors for change and provide clear norms for criticism and goals that may be achievable for social transformation.

Similarly, Cohen et al. (2017) maintained that the intention of CDT is not to give account of society and behaviour but to build a society that is grounded on equality and democracy of all members. Thus, the purpose of CDT is not only to understand situations and phenomena but to change them, emancipate the disempowered (such as persons with disabilities), address inequality and encourage accessibility, participation and success of all people in society (Bohman, 2012). Rocco (2005) affirmed that sometimes discrimination against students with disabilities is so ordinary that it remains invisible to be challenged. However, CDT provides an opportunity to identify and challenge these seemingly ordinary issues that militate against students with disabilities in higher education (Goodley, 2016).

Furthermore, this CDT provides an opportunity to understand different issues that relate to disability and equality. Evidence shows that CDT could provide the foundation for understanding the relationships that exist between the legal, economic, political and social reasoning for inclusion of PWD and the systemic challenges and oppression that position CwSN as unequal citizens (Delvin & Pothier, 2006). In this regard, CDT contests the conception that accentuates individual impairment as the cause of disability. CDT therefore, argues that disability is caused by the lack of

society's response to address barriers that create the disability (Devlin & Pothier, 2006), a view equally shared by social constructionists.

Most CwSN in Ghana have systematically been denied access to higher education in many countries as a result of marginalization and subjugation. However, this practice has been justified on the basis of the child's biological deficiencies (Morina, 2017). As a result, issues of CwSN are not taken into consideration when discussing concerns of unequal and discriminatory treatment (Baynton, 2001). The theory, therefore, recognizes educational rights as obligatory for the promotion of equality and early inclusion of children in pre-school like their able-bodied counterparts. To gain insight into children with disabilities' experiences, CDT emphasizes different factors including voice, language, and equality and social right (Hosking, 2018).

The voices of CwSN are fundamental components of CDT since they have been under-recognized and marginalized within (Hosking, 2018). CDT builds on a flexible approach to social inquiry which depends on the stories of CwSN. Hosking (2018) believed that the only way to understand and value the worth of students with disabilities is to listen to their stories in order to recognize that living with disability does not prevent a meaningful life. Accordingly, CDT ensures that attention is given to students with disabilities to articulate their views and values they bring to higher education (Rocco, 2005). This indicates that considering students with disabilities' voices and perspectives should be dominant in any research that has the aim of promoting inclusive policies and practices (Barnes, 2007).

Another component of CDT is the influence of language on the concept of disability and the status of CwSN. This component is associated with the words and images used to describe or label CwSN, and are very important because the language people

use to describe individuals with disabilities affects their status and self-concept (Goodley, 2016). Thus, the language non-disabled people direct at individuals with disabilities could motivate or demotivate them. In the Ghanaian context, the language used to describe CwSN is demeaning and influences negative attitudes toward them (Giroux, 2009). CDT therefore, investigates the influence of these negative attitudes that portray disability as a tragic event and render persons with disability powerless, vulnerable and dependent (Hosking, 2018).

This study adopted CDT because it highlights the educational rights of children are marginalized and discriminated against. Proponents of this theory believe in equality and social rights of people who are marginalized such as CwSN (Bohman, 2012). It considers access to education for children with disabilities as a human rights issue destined to curtail marginalization of individuals with disabilities in societies. Secondly, CDT provides the theoretical basis for the development of effective policy response to disability that could influence political and social institutions meant to safeguard the education of CwSN. In this study, this theory provided understanding that guided me in exploring the early intervention programmes rendered to these children likewise its influence it has on them and their families at large. Finally, the theory also provided guidance on selection of methodology, analysis, interpretation and discussion of the meanings and understanding of the early childhood interventions provided for CwSN in early childhood centers (Schalk, 2017).

### **2.2.2 Social Learning Theory**

The social learning theory of Bandura (1986) states that that behaviour is based on a combination of observable stimuli, and internal psychological processes. People are often reinforced for modeling the behaviour of others (Rand & Company, 2005).

Child development is a dynamic process where children make progress from dependency on caregivers in all areas of functioning during infancy, towards growing independence in the later childhood (primary school age), and through adolescence and adulthood periods (WHO, 2012). Therefore, McLeod (2011) suggested four requirements for someone to learn a behaviour: attention (the extent to which we are exposed/notice the behaviour). For a behaviour to be imitated, it has to grab our attention, retention, reproduction and motivation. Retention (how well the behaviour is remembered), reproduction (the ability to perform the behaviour that the model has been demonstrated. The ability to reproduce a behaviour) and motivation (the will to perform the behaviour to engage in the behaviour) (McLeod, 2011). All these requirements are very important in early intervention for children with disabilities because the early years offer a special opportunity to foster developmental gains in children as 80% of the brain's capacity develops before the age of three (UNESCO, 2019). Children observe the people around them behaving in various ways. Individuals that are observed are called models (Cherry, 2016).

In the social learning system, new patterns of behaviour can be acquired through direct experience or by observing the behaviour of others and more rudimentary form of learning, rooted in direct experience is largely governed by the rewarding and punishing consequences that follow any given action (Cherry, 2016). Interactions with peers reduce young children's social isolation and provide opportunities to acquire social, language and academic skills through observation of others' behaviours (Banerjee et al., 2016). The social learning theory is based on the idea that observational learning involves the fact that humans often cannot learn for themselves (Cherry, 2016). To help children with disabilities show their potentials, they have to interact with others so that they can observe a behaviour and imitate it.

In early childhood classes, children are surrounded by many influential models, such as teachers, characters on children's TV, friends within their peer group and the other people (McLeod, 2011). These models provide examples of behaviour to observe and imitate. Social learning theory proposed that learning can also occur simply by observing the actions of others (Cherry, 2016). CwSN should be given opportunities to attend early childhood education to acquire knowledge that prepare them for primary education. As a result, this current study employed Bandura's (1986) social learning theory to assess the early interventions services for learners with special needs in some selected early childhood centers in Abuakwa township by using it to explain the influence of others to model the behaviour of children with special in early childhood centers within the setting and the importance of intervening at early age to enhance their participation in inclusive education later in their studies.

### **2.3 Children with Special Needs (CwSN)**

According to WHO (2011), CwSN refer to persons below the age of eighteen (18) with health conditions such as cerebral palsy, spinal bifida, muscular dystrophy, traumatic spinal cord injury, down syndrome, and those with hearing, visual, physical, communication and intellectual impairments. Similarly, the term, CwSN refer to children up to the age of 18 who have long-term physical, mental, intellectual, or sensory impairments that in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others (UNICEF, 2013).

#### **2.3.1 Types of CwSN**

##### **Hearing Impairment**

Hearing impairment refers to one whose auditory system is partially or fully dysfunctional which puts such an individual in a situation where the acquisition and

use of speech is possible with a hearing aid (Charles & Malian, 2010). Winzer (2015) asserted that hearing impairment is generic and may range in severity from mild to profound. According to Winzer (2015), hearing impairment is painless, unrecognizable and often misunderstood. This leads to impairment in communication skills and eventually resulting in isolation (Kaplan, 2016). It is very vital for CwSN to be detected so that the required remedial procedures can be undertaken. To do this, educational workers should be familiar with the signs of hearing loss. UNICEF (2013) indicated that children with hearing impairment often fail to pay attention in class therefore resulting in the provision of wrong answers to simple questions.

### **Visual Impairment**

The absence of visions leads to difficulty in the functioning of individuals and can truncate the learning, social growth and adjustment process of children (Immen, 2015). Barraga (2016) discussed vision impairment in three (3) categories namely blind, low vision and visually limited. According to Barraga (2016), blind person are individuals who have light perception without projection or without any sense of vision. On the other hand, persons with low vision have limitations in terms of distance but are able to see objects within a few feet away while visually limited persons are often limited in their use of vision under average circumstances. Generally, visually limited person are considered for mainstream educational purposes like seeing children.

### **Communication Disorders**

According to Prizant (2011), communication disorder is the deviant development of understanding or the effective use of any written or spoken system. Poor communication skills among children affect their functioning as well as academic

performance (Winzer, 2015). Winzer (2015) posited that communication disorders results in problems of cognitive development, academic achievement as well as social and emotional development.

### **Attention Deficit and Hyperactive Disorder (ADHD)**

ADHD is undoubtedly amongst the most popular disabilities in the last decade (Winzer, 2015). The situations whereby pupils are unable to sit or concentrate on anything for a long period are classic symptoms of ADHD. These symptoms are not limited to specific situations but are manifested at all times. Children with ADHD find difficulty in active participation in class activities and are easily distracted by stimuli of auditory or visual nature. ADHD is categorized into hyperactive and impulsivity. Hyperactivity in children compels them to excessive motor behaviour that is too high for their age group. They are unable to simply restrain their activity in order to sustain attention. This excessive and meaningless investment of energy disturbs teachers and cause discomfort to other children. When compelled to behave appropriately, they transmit their need to be hyperactive into disruptive activities such as foot and finger tapping.

### **Autism Spectrum Disorder**

Autism is a developmental disorder that affects the verbal and non-verbal communication and social interaction of children (Bowler, 2016). American Psychiatric Association (2010) characterize autism as including irregularities in communication, resistance to environmental changes, intellectual disabilities, behavioural disorders and unusual response to sensory experience. The term “spectrum” means that the effect of autism varies from child to child. To manage and effectively teach a child with autism, attention should be focused on the management

and strategy proposed by Winzer (2015) that requires that tasks meant for autistic pupils should be broken into similar units and each unit taught one step at a time.

#### **2.4 Concept of Early Intervention**

The term EI generally refers to services provided to young children (birth to six years) at risk of or who have developmental disabilities or delays (Carroll et al., 2013). EI services have long-term benefits for children and their families (Guralnick, 2015). Guralnick (2021) defined early childhood intervention as a system designed to support family patterns of interaction that best promote child development. Guralnick (2021) promotes the use of the Developmental Systems Approach (DSA) for early childhood intervention in order to inform service provision and to support uniformity. Indeed, a radical change is taking place in the provision of early services for children with special educational needs and disabilities (Guralnick, 2015). The Health Service Executive (HSE) is committed to ensuring that every child will receive timely, coordinated, high quality, family-centered services (Health Service Executive, 2015). The HSE currently aims to “provide integrated services that meet the highest standards” for those using disability services. For CwSN and their families, access to effective EI services, within the first five years of life, is critical to the child’s development (Guralnick, 2021). ECI is a federally mandated programme through the Individuals with Disabilities Education Act, Part C which provides targeted services aimed at increasing a child’s developmental progress for children from birth to age three. Babies and young children with documented developmental delays in areas such as communication, language, mobility, and/or social/emotional interactions; or children diagnosed with a disability such as hearing or visual impairment, intellectual/cognitive disorders, or medical diagnosis that could affect development. Delays in development can have significant ramifications for later life, particularly in

terms of school readiness and achievement. Whether caused by biomedical reasons or environmental factors, without prevention techniques such as early intervention, developmental delays can manifest into learning disabilities (Heward, 2013) which impact a child's ability to function within the context of the education system.

Therefore, the purpose of these programmes is to provide at-risk children targeted interventions to facilitate their development as it compares to same aged peers. Research has overwhelmingly confirmed that the earlier an intervention is started, the more benefits that it will bring into that child's life; indicating, ECI provides an essential resource to families by coordinating relevant services to guide the child's developmental progress (Zigler & Hall, 2021).

The increase in research in the neurological, behavioural and social areas has affirmed beyond doubt the importance of early life experiences (Shonkoff et al., 2012). The transactional model of development stresses that the child and their contexts shape each other and that this complex interaction impacts on development. The contexts in which a child interacts, in particular the distal influences, such as the family, education and EI are important to consider. Providing school EI services to children and their families are regarded as best practice (Adams et al., 2013). The development of best practice tools to help professionals to work with families within EI and prevention services is the vision (Government of Ireland, 2014). EI team services involve multiple professionals, parents and children with disabilities. There is an identified need in Ireland to organize services to promote optimum child outcome and greater parental wellbeing (Health Service Executive, 2015).

### **2.4.1 Guiding Principles of Early Intervention**

Dunst (2017) alluded that the following principles guide the ways in which early intervention is operationalized and practiced. The principles include:

(1) The experiences and opportunities afforded infants and toddlers with disabilities should strengthen children's self-directed learning, development to promote acquisition of functional behavioural competencies, and children's recognition of their abilities to produce desired and expected effects and consequences. Dunst (2017) explained that a fundamental distinction is made between experiences and opportunities that are contexts for a child's acquisition and use of behaviour that is intended to have desired consequences and those intended to elicit a child's behaviour.

(2) Parent-mediated child learning is effective to the extent that it strengthens parent's confidence and competence in providing their children with development-instigating and development-enhancing learning experiences and opportunities. In this principle, Dunst (2017) contended that the principle makes explicit that the benefits of early intervention should be realized by both children and their parents or other primary caregivers. The likelihood that parents and other primary caregivers will provide children with the kinds of experiences and opportunities that influence their development is maximized when adults recognize and understand the important role they play in influencing their children's growth and development (Dunst, 2017).

(3) The role of early intervention practitioners in parent-mediated child learning is to support and strengthen parent capacity to provide their children with experiences and opportunities of known qualities and characteristics (i.e., evidence based) that are most likely to support and strengthen both parent and child capacity. In this principle,

knowledgeable practitioners are aware of what research “tells us” about the characteristics of practices that are associated with optimal positive benefits. Practitioners intervene directly with children only to the extent that it serves to model for parents the use of evidence-based practices with their children (Dunst, 2017).

## **2.5 Policies of Early Childhood Intervention**

ECI services are guaranteed to qualifying children and families under specific federal and state policies that have been enacted since the 1970’s. While states determine how to the services are provided, there are federal mandates that require specific steps in order to receive funding for the programmes.

### **2.5.1 Individuals with Disabilities Education Act-Year 3**

The Individuals with Disabilities Education Act (IDEA) was an important civil right win for people with disabilities, specifically in terms of equal educational services. The law was originally passed in 1975, with the most recent Congressional reauthorization as IDEA in 2004 with the goal of making classrooms and other public spaces more inclusive. Part C of IDEA, titled Early Intervention Programme for Infants and Toddlers with Disabilities extends legal protections to children between the ages of zero to three. In section 303.1, the purpose of Part C is illustrated as follows:

- (a) Develop and implement a statewide, comprehensive, coordinated, multidisciplinary, interagency system that provides early intervention services for infants and toddlers with disabilities and their families;
- (b) Facilitate the coordination of payment for early intervention services from Federal, State, local, and private sources (including public and private insurance coverage);

(c) Enhance State capacity to provide quality early intervention services and expand and improve existing early intervention services being provided to infants and toddlers with disabilities and their families;

(d) Enhance the capacity of State and local agencies and service providers to identify, evaluate, and meet the needs of all children, including historically underrepresented populations, particularly minority, low-income, inner-city, and rural children, and infants and toddlers in foster care; and (e) Encourage States to expand opportunities for children under three years of age who would be at risk of having substantial developmental delay if they did not receive early intervention services.

According to IDEA (2004) Part C, while the federal government provides some funding to early intervention programmes following specific requirements, the development, execution and updating of early intervention services, as well as child-find efforts and eligibility assessment are under the jurisdiction of individual states.

## **2.6 Early Childhood Intervention Practices**

EI refers to a comprehensive set of individualized service designed to meet the development needs of infants and young children and families (Lanzi et al., 2017). EI offers an opportunity to improve the developmental trajectories of infants and young children who are identified as having developmental disabilities or at risk for having developmental delay (Lanzi et al., 2017). Typically, EI is provided for children who already have a known disability or are judged to be at risk for non-optimal development, based on biological, psychosocial, or other life factors (Ramey & Ramey 2020). A fundamental principle of EI is that it should begin as early in life as possible, and that it should be tailored to the specific needs of the individual infants and young children (Lanzi et al., 2017). Thus, an intervention that began at age 3 with

children who were already developmentally delayed, would have different expected outcomes one year later than an intervention that began at birth for children with disability or for high-risk infants who were being assessed at age 1 year (Ramey et al., 2021).

EI programmes include; educational and medical services for diagnosis, evaluation and support; health and nursing services; nutritional counseling; psychological services; and assistive technology devices and services. Additionally, services can support the family in terms of family training, counseling, home visits, service coordination, special instruction, transportation and related costs (Lanzi et al., 2017). More so, EI programmes should be developed in partnership with families and should work with them in a dynamic relationship that is characterized by active development of existing family strengths and sensitivity to the family culture and to the nature and extent of family needs (Farran, 2020). EI must be evidence based, support the child's development in the context of the child's family and community and must integrate the contributions of multiple disciplines and agencies within a web of supports constituting programmes that are once comprehensive and uniquely so to meet the needs of individual children and families (Guralnick, 2021).

EI programmes have changed over time and have a certain set of characteristics in order to be successful (Guralnick, 2021). A well-organized but informal set of supports (i.e., parent groups, family counseling services) are needed and they are available in all communities and are organized in a manner that is consistent with the federal legislation. Most formal programmes also have a curriculum that contributes to its effectiveness (Guralnick, 2021). Children are not exposed to EI but their progress is tracked to see if it improves over time as they get older.

If growth does not occur at a typical rate, EI programmes can be explored by parents and families. Family factors and cultural responsiveness have been identified as important characteristics of an EI programme in order to promote positive outcomes for participants (Bradshaw, 2013; Dunst, 2017). There are several important familial aspects of a successful intervention (Dunst, 2017). Firstly, the strengths of the child-parent relationship should be emphasized in intervention to help promote confidence in the child and self-efficacy for the parent.

Family control and access to resources were also seen as significant as opposed to becoming dependent on only resources (Dunst, 2017). Resources could include using mental health services, occupational therapists, or speech and language pathologists. Partnerships between practitioners and families would result in better outcomes than professional centered approaches alone (Dunst, 2017). Lastly, meeting the cultural needs of each particular family is an aspect that may need to be considered (Bradshaw, 2013).

There are several factors that are involved in creating a culturally friendly intervention service. Cultural competence is based on four factors: examining one's own culture, acquiring knowledge of client cultures, building culturally competent practices, and reflecting and evaluating practices (Bradshaw, 2013). Examining one's own culture is important to realize one's values, biases, and thoughts. Since the number of families seeking intervention services is increasing, practitioners are more likely to be exposed to cultures other than their own (Bradshaw, 2013). Acquiring knowledge of the clients one is working with allows for the greatest degree of authenticity and standardization for the intervention services (Bradshaw, 2013; Fantuzzo et al., 2016).

Some cultures believe that disability arises from supernatural causes and may be caused as a reward or retribution from past actions (Bradshaw, 2013). This may affect their willingness to agree to certain services or trust in their effectiveness. Building culturally competent practices requires precision, accommodations, and changes over time. EI programmes must be adjusted to meet the diverse needs of students but also keep students integrated and included. There are many aspects that must be considered as fundamental to a successful early intervention programme which include; theoretical constructs, cultural responsiveness, and familial aspects (Bradshaw, 2013; Dunst, 2017).

EI can make a positive difference on children's language development (Lanzi et al., 2017). However, the overarching limitation is that it is not known to what extent these benefits continue on in the children's later academic years and if exposure to these interventions at the preschool age is the right time. Nevertheless, one goal of early intervention programmes is to promote growth of many developmental areas in children especially social language (Fantuzzo et al., 2016).

### **2.6.1 Assessment and Placement**

Professionals who make decisions about student assessment on a regular basis, have the arena of early childhood assessment that can be difficult to navigate (Yell, 2016). It is not enough to simply assess earlier content using the same approaches as those used in older grades, or to take decisions about tools and purposes that were made with older students in mind and extend them to younger children. Instead, professional standards and guidelines for early childhood assessment must begin with attention to the important reality that young children are continuously and rapidly developing, both academically and across a wide range of other domains. The context

that informs assessment decisions for early learners is qualitatively different from the context for older students. Across the nation; school districts are selecting from among standardized measures, designed group-administered measures, and open-ended subjectively scored tests to make decisions about school or teacher accountability and student placement (Lanzi et al., 2017). These tests are part of accountability systems that have been designed differently in each state in an attempt to ensure that student learning has occurred of which Ghana is no exemption. In many cases, test results and accompanying consequences are neither clearly understood by parents nor policy makers. Often in an effort to design an accountability system, the developmental level of the child seems lost (Lanzi et al., 2017).

An assessment system should include a variety of instruments for various categories or purposes; clarifying the main purpose of the assessment, determining what should be measured, establishing procedures for data collection, and selecting data sources, (child work, standardized tests, teacher report, and parent report) are all components in an assessment process. Safeguards, however, should be in place to protect against harmful nor questionable assessment-based decisions with the consequences or use of the results spelled out to the parents (Lanzi et al., 2017).

According to Robbins (2011, p.19), assessment of individual children is currently used to/for:

1. determine progression on meaningful developmental achievements,
2. place or promote,
3. detect special needs, learning, and teaching problems,
4. assist with curriculum and instruction decisions,
5. To help a child assess his or her own progress,

6. To boost learning,
7. To evaluate programmes,
8. To monitor trends, and
9. “high-stakes” accountability.

Assessments should benefit children by improving the quality of educational programmes or in providing direct services to children. It should link to the specific purpose and must be valid, fair, and reliable for that purpose. When designing assessment policies, policy makers should consider that reliability and validity increase with children's age, and that the method of data collection and content through any data collection method selected should be age appropriate.

### **2.6.2 Individualized Educational Programme**

Though the federation of Individuals with Disabilities Education Act (IDEA), (Public Law 94-142) mentioned that an Individualized Educational Plan (IEP) ranges through 3-21, an Individualized Family Service Plan (IFSP) is much broader and used for children from infancy through age 2. An IFSP is a document or written plan that refers to the process of determining what services a young child with developmental delays or disabilities need. It involves the family more, and may include professionals from several disciplines in planning for the child. An IFSP is based on an in-depth assessment of the child's needs and the concerns of the family. It contains information on the child's present level of development in all areas, outcomes for the child and family; and services the child and family will receive to help them achieve the outcomes (Yell, 2016).

An IEP is an important legal document that spells out the child's learning needs, the services the school will provide and how progress will be measured. Several people,

including parents (multidisciplinary team) are involved in creating the document. The process is a way to sort out the child's strengths and weaknesses (Farran, 2020). Working on the IEP helps figure out ways to help children succeed in school. Creating an effective IEP often takes time, effort and patience. A federal law called the Individuals with Disabilities Education Act (IDEA) requires that public schools create an IEP for every child receiving special education services. Kids from age 3 through high school graduation or a maximum age of 22 (whichever comes first) may be eligible for an IEP. The IEP is meant to address each child's unique learning issues and it includes a specific educational goal that is legally bonded. Each school should therefore, provide everything it promises in the IEP including a statement of the child's present level of performance (PLOP). This is how a child is doing in a school:

1. Your child's annual educational goals.
2. Special education supports and services that the school will provide to help your child reach goals.
3. Modifications and accommodations the school will provide to help your child make progress.
4. Accommodations your child will be allowed when taking standardized tests.
5. How and when the school will measure your child's progress toward annual goals.
6. Transition planning that prepares teens for life after high school.

### **2.6.3 Home Visitation**

One of the models of ECI programmes is the practice of home visits by service teachers to families. Home visitations are targeted for each individual and family. According to the child's specific needs, various services will be provided as organized by a designated service coordinator who is responsible for maintaining a relationship

with the family. The service coordinator assesses through an evaluation process involving a developmental assessment such as the Battelle Developmental Inventory, Second Edition (BDI-2) with the family present in order to determine the child's specific deficits over the various developmental domains: adaptive, communication, motor, social/emotional and cognitive (Health Service Executive, 2015). Then, the specialist manages the needs of the family by orchestrating a provision of services which most commonly include physical, occupational and speech therapists, nurses, social workers, counselors and interventionists.

The home visitation model closely aligns with the family-centered principle of ECI because it facilitates interventionists to meet families on their own terms (Health Service Executive, 2015). Additionally, home visitation provides an excellent learning opportunity for service providers to understand the particular cultural and dynamics of each individual family, so services can be tailored to suit their exact needs (Kaplan, 2016). Because the child is in a comfortable and familiar environment during a home visit, service providers and interventionists also become privy to valuable information about the family and home that would not otherwise be understood through an office visit or at a childcare setting (Kaplan, 2016). This assists the child's development because it allows service providers to interpret the specific needs of the child and implement interventions that suit their natural environment while supporting their developmental needs as well.

In particular, home visitation sessions can be an opportunity for service providers to support the attachment between the family and child by modeling intervention techniques in real time as the child exists within their home environment (Dozier & Bernard, 2017). Attachment, as well as other important facets of development that a

child may have difficulty with can be easily addressed in an individualized manner through the practice of home visits, because intervention will always be tailored to that child's individual needs and progress.

#### **2.6.4 Day Programmes**

This model is more common in urban areas and is most successful for parents who are not at home with their child for the whole day. Depending on the location and philosophy of the programme, day programmes can either be targeted for specific populations or universal with open enrollment. Day programmes are generally more focused on a child's cognitive development in the short term (school readiness) and their socio-emotional, language and health benefits in the longer term (Zigler & Hall, 2021).

To differentiate an EI day programme from a typical childcare setting for kids of the same age, it is important to note that the instruction is targeted to the needs of the individual children and provided by specifically trained instructors/caretakers. WHO (2010) indicated that early interventions can be broadly grouped into three categories: parenting programmes, child-focused programmes and multi-component programmes. Parenting programmes are short-term interventions that primarily target the parent or family and provide parenting education or skills-training. Child-focused programmes target the child or young person directly and typically involve instructional or skills-based approaches delivered in the school settings. Multi-component programmes involve more than one intervention and may target the entire school, the home and/or the community in addition to the child.

### **2.6.5 Targeted versus Universal Programmes**

Targeted programmes refer to programmes such as Head Start, in which specific populations are qualified to enroll and interventions are tailored to suit their individual needs. Universal programmes refer to a broader model in which children may enroll regardless of demographics. In terms of providing early School Project, the Abecedarian and Jamaica Study were all pivotal in understanding the long-term benefits ECI provided through intensive day programmes (Dawson et al. 2019). Furthermore, Head Start is a federal programme that is available to children who qualify for ECI services based on household income or diagnosed disability. Furthermore, day programmes are significantly more effective when caregivers are given access to quality training from service providers such as speech pathologists and intervention specialists (Dawson et al. 2019). Just like home visitations follow a parent coaching model, this same philosophy can be implemented to caregivers in day programme models in order to ensure quality of care (Dawson et al. 2019). Despite the greater initial cost associated with the introduction of day programmes, programmes such as Early Head Start can be significantly more cost effective and sustainable than traditional 1:1 therapy models or home visitations, especially for children diagnosed with specific developmental disabilities (Dunst, 2020).

The fields of early childhood and early childhood special education incorporate instructional goals, language development, concept formation and curriculum content into normally occurring routines in the home, preschool, day care center, and kindergarten settings (Bruder, 2020). Bearing in mind that children with special needs require efficient, effective, and functional instruction directed at achieving socially, psychologically and educationally valid outcomes (Cherry, 2016), it is important that practitioners identify the nature of each child's disability, needs and the extent to

which accommodation and support will be necessary for each child to be successful. Instructional arrangements, curriculum content and instructional procedures can and should be varied to coincide with the intensity of each child's learning needs. Such accommodations increase the likelihood that children with special needs can be included in a variety of mainstream classroom activities.

### **2.6.6 Early Intervention and Play Materials**

According to Prizant (2011), whether disabilities are physical or health-related, EI programmes provide a strong foundation for the child and family. Motor development and positioning and the development of communication skills are often target areas for young children with physical disabilities (UNESCO, 2019). In all EI disciplines, play becomes a major focus of professional services for children with developmental delay and special needs. Play serves as a process for learning, a process for assessing developmental skill sets, and a process for delivering intervention procedures to improve a child's developmental and learning abilities (WHO, 2010). In other words, EI may involve establishing developmentally appropriate play skills themselves as a goal and using play as a means of achieving other goals (Baraga, 2016). These can be for instance enticing a child to swipe at bubbles extends the range of motion in his arms or when coaxing a child to crawl toward a toy improves her mobility. The introduction of miniature lifelike toys, in another example, that may encourage pretend play and cooperative play. Charles and Marian (2010) showed that block play helps children improve motor skills (by picking up blocks), overcome their mild sensory difficulties (by learning to tolerate the texture of the blocks), and increase their social interaction (by learning to take turns playing with the blocks).

Previous studies show that EI professionals spend approximately 69 percent to 72 percent of their therapy sessions using toys. Although most professionals used toys already in their clients' homes, they also brought their own play materials (Immen, 2015). Selecting and preparing play materials forms a major component of the service professionals provide because these materials affect most of the stages in the intervention process including planning, budgeting, interacting with the children and their families, and teaching parents how to continue the therapeutic play after the visits. The way professionals use play materials in consultation with families reflect their philosophy and favored methods of child and family intervention (Baraga, 2016). Generally, play materials are essential in EI and there is much evidence that providers help many families in poverty, we know little about the actual practices and preferences of different types of early intervention service providers (Guralnick, 2021).

Mashburt et al. (2018) found significant associations between teachers' use of specific instructional strategies to promote children's higher-order thinking and creativity (e.g. talking about ideas, reasoning about future events), the provision of feedback to children about their ideas and their work, and children's academic and language competence gains. The quality of teachers' emotional support for children (e.g., sensitivity to children's needs, effective use of behaviour support strategies) was positively associated with children's social competence. In all of these analyses, teacher-child interactions that reflected higher levels of instructional quality and emotional support were associated with better child outcomes.

### **2.6.7 Teacher Mediated Interventions**

An example of a teacher mediated intervention practice stemming from behavioural learning theory is direct instruction for children with disabilities. Direct instruction includes the presentation of a stimulus to elicit a prescribed behaviour followed by reinforcement of the behaviour to ensure the likelihood the child will use the behaviour again (UNICEF, 2013). What unites teacher-mediated interventions is the intentionality of instruction, whether from constructivism or behaviourism, towards children with an identified disability or peer social competence deficits (WHO, 2010). Teacher-mediated interventions include individualized interventions within both individual and small group instruction.

Studies centered on teacher mediated interventions focus on the use of targeted strategies such as prompting and reinforcement to CwSN or social competence delays during ongoing play activities, script training for CwSN to support their knowledge of pretend play activities prior to play, direct social skill training to teach CwSN social initiations and responses in social engagement with other children, the use of contingency reinforcement systems of desired social skills for CwSN, and the use of curriculums designed to structure play and social activities to support social interactions between children with and without disabilities (Schalk, 2017). There are critical link between features of classroom of learners with physical disabilities such as the quality of teacher-learner interactions and the nature of teachers' to children and positive learner's outcomes.

Data collected in state funded primary classrooms in 11 states with established programmes provide evidence that the quality of children's interactions with the nature of their experiences with their peers and the instructional focus of the

classrooms are among the most essential features of classrooms for improving outcomes (Winzer, 2015). In contrast, most infrastructure and programme design features (i.e., structural features such as class size, child-to-teacher ratio and teacher credentials) were not directly related to children's academic and social outcomes. The researchers suggest that structural features create the conditions in which high quality teacher-child interactions occur (Bowler, 2016).

Guralnick (2015) targeted teaching three children with developmental delays and language impairments specific social interaction skills such as, social initiations, social responding, using names, being close to peers, and turn taking. They found that the children in the study improved their social communication skills, which are necessary for peer social interactions. Tincani (2017) used Social Stories™ (Grey, 2014) to teach pro-social behaviours to three preschool children with autism. They found that Social Stories™ (Grey, 2014) alone increased children's pro-social behaviours, as well as decreased negative behaviours, for two of the children in the study. The addition of prompting led to changes in behaviour for the third participant (Tincani, 2017). Harvey (2013) used video self-modeling to teach three preschool children with autism social initiation strategies. They found that children's use of social strategies, following intervention, was near that of what could be expected for typically developing children of the same age.

#### **2.6.8 Peer Mediated Interventions**

Peer mediated interventions rely on the principles of behavioural learning theory. Peer mediated interventions focus on deliberately utilizing typically developing peers to promote the ability of children with disabilities to engage in social interactions with them (Carroll et al., 2013). In peer-mediated interventions, teachers train typically

developing peers to socially initiate with children with disabilities, as well as to persist in their efforts, by providing prompts and reinforcement to the peers for their social interaction behaviours (Robbins, 2011). Peer-mediated interventions rely on the concept of social reinforcement, in which the target child responds contingently to a social initiation from a peer, and is reinforced by the subsequent social response of the peer back to the target child (Robbins, 2011).

This category of interventions relies on teachers to identify peers who are socially skilled, and train them to use strategies to gain the attention of children with disabilities in order to request objects, share objects, and take turns with them (Zigler & Hall, 2021). Peer-mediated interventions have significant empirical evidence, established through numerous single case design studies supporting peer mediated interventions efficacy for increasing the rates of social interactions between children with and without disabilities (Zigler & Hall, 2021).

Katz (2013) trained early childhood teachers and speech-language pathologists to implement a peer mediated intervention with three preschoolers with special needs and six of their peers to promote the social engagement of children with autism in play. All children with autism made gains in the frequency of their social interactions with the typically developing peers or confederates, as well as the duration of time they were socially engaged with their peers (Katz 2013). Barber et al. (2015) used a peer mediated intervention “*Stay Play and Talk*” with three preschoolers with autism to promote their social communication skills during play. All three preschoolers demonstrated increases in their social responding and reciprocal exchanges with their peer confederates (Barber et al., 2015). Jung et al. (2018) used peer modeling and high probability requests to increase the social responses of three preschool children

with autism. All three of the children increased their rate of social responses following the implementation of the intervention (Jung et al., 2018).

### **2.6.9 Combined Approach Packages**

Combined approach peer social competence training packages theoretically offer a more advantageous approach to implementing an effective social interaction intervention given their comprehensiveness. Guralnick (2021) in their study on environmental arrangements, child specific (teacher mediated) interventions, peer mediated interventions, and a combined approach training package, were compared to identify differences in child peer social competence outcomes for the type of intervention utilized. Ninety-two children in four classrooms in two states were randomly assigned to receive one of the intervention types and a fifth classroom served as a control. The experimental design utilized pre-test and posttest scores for children's social competence via direct observation and peer socio-metric ratings. The researchers found that while all the interventions produced effects related to changes in children's pre-test and posttest peer social competence ratings, the combined approach supported the development of peer social competence the least effectively.

Chapman et al. (2012) used a training package that consisted of structured play activities, direct instruction for play skills, and play vocabulary, and peer mediation to improve the social communication skills of four children with either developmental delays or language impairments. All children increased both their social initiations and social responses with peers (Chapman et al., 2012). Hudert et al. (2020) used both Social Stories™ (Grey, 2014) alone and in combination with a peer buddy to investigate the differential effects of these interventions on the interactive play of three preschool children with autism. They found that the combination of social

scripts and the peer buddy had the most significant effect on the interactive play of the children with autism (Hundert et al., 2014). Shepis et al. (2023) trained classroom assistants to use children's interests, prompts and reinforcement, as well as a peer-mediated intervention, to support cooperative play for two children with severe disabilities. The children made gains in their cooperative participation in play with typically developing peers, while the social participation of children whose support staff did not receive training, did not increase.

## **2.7 Global Studies on Early Intervention Strategies**

A report by the UNICEF (2019) suggested that performance in the different domains of Early Child Development [ECD] described as the development of physical, socio-emotional and language-cognitive capacities in the early years can be modified in ways that improve health, well-being, and competence in the long-term. According to WHO (2010), an Individualized Family Service Plan (IFSP) is a requirement devised for all recipients of early intervention service. The components of IFSP must include a statement of the child's present level of physical, cognitive, communication and social or emotional and adaptive development.

Broadly, the term "EI" is used to mean activities, programmes and initiatives designed to alter the behaviour or development of individuals who show signs of an identified problem or who exhibit risk factors or vulnerabilities for an identified problem, by providing the resources and skills necessary to combat the identified risks (Zigler & Hall, 2021). EI includes intervening early in life, early in the developmental pathway, and early in the life of the problem. Australian strategies on early interventions are broadly grouped into three categories; parenting programmes, child-focused programmes and multi-component programmes. Parenting programmes are short-term

interventions that primarily target the parent or family and provide parenting education or skills training.

Child-focused programmes target the child or young person directly and typically involve instructional or skills-based approaches delivered in the school settings. Multi-component programmes involve more than one intervention and may target the entire school, the home and/or the community in addition to the child (Bowler, 2016). In Ghana, early childhood intervention is an essential contributor and catalyst for the development of a culture of positive attitudes towards children with disabilities in a country. A better conceptualization of the term early intervention is relevant to providing effective early childhood education programmes for children with disabilities in Ghana. Early identification and EI are two most promising areas in contemporary special and inclusive early childhood education (Ackah & Appiah, 2011).

## **2.8 Rationales behind Early Childhood Intervention Services**

EI is crucial to children who are suspected or are at-risk of having developmental delays or any other learning challenges as research shows that children's earliest experiences play a very critical role in brain development. The importance in early intervention has an impact in the neural circuits of the brain in children as they are the most flexible during the first three years of life (Ramey, 2018). The neural circuits create the early foundational learning, behaviour, and health of any children during this critical window period. Research has shown that early social emotional development provides the foundation in which cognitive and language skills develop during the early years of a child (Ramey, 2018). For example, children with autism spectrum disorder who are non-verbal and begin EI in their early preschool years

were more likely to become verbal as compared to children who begin intervention after 5 years old (Koegel, 2020). This finding of beginning intervention early is further supported by other researchers (Reichow, 2022). Parents need to be aware that EI is different from early childhood education as its focus is on family-centered services. EI focuses on individually planned educational programmes and specialized teaching approaches that cater to the needs of the children with the partnership from parents.

While the aim of EI is its focus on early developmental skills that are precursors for current and later school success, it can also help to minimize the effects of the disabilities or risk and maximize the child's development. In this way, it helps to enhance the child's potential for independence in adulthood (Bailey et al., 2016). Ramey (2018), there were improvements in children's learning outcomes when the EI programmes are intensive and systematic with parents being the active partners in their children's developmental progress. Finally, when intervention starts early rather than late, it is likely to be more effective in the child's learning outcomes and also less costly in the long run (Bailey et al., 2016).

Dunst (2017) stated that failing to start interventions as early as possible is seen as missing an important opportunity for learning and favorably influencing early brain development. EI promotes development of the child and well-being of families. Professionals of any discipline who are concerned with children's growth and development know that the early identification of infants who either have disabilities or are at risk of developing them is essential, as is the provision of appropriate services in order to promote these children's developmental progress (Robbins, 2011). Robbins (2011) noted that "the primary purpose of EI is to promote the development

and learning of very young children by helping their families identify and put into practice ways to support their healthy growth.

Omumu (2012) stated that there are three primary reasons for intervening early in a child's with disability: i) to enhance the child's development; ii) to provide support and assistance to the family, and iii) to maximize the child's intervention and family's benefit to society. Omumu (2012) further stated that EI programmes have a significant impact on the parents and siblings of infant or young child with disability. EI can result in parents having improved and positive attitudes, positive information and skills, and more leisure time for themselves and their children with disability. According to Heward (2016), EI reduces the effects of disabilities or prevents the occurrence of learning and developmental problems later in life for children presumed to be at risk for such problems. It provides support for the child and family that will help prevent the child from developing additional problems or disabilities.

Guralnick (2015) alluded that making sure that the availability of well-coordinated, highly effective early intervention programmes in every community, each representing contemporary principles and practices, is held to be a reasonable goal by the policy makers, parents, and professionals. EI is important and beneficial to children with disabilities, as well as their families. From a practical viewpoint, promoting the health and development of children with disabilities increases their preparedness to participate as adults in the economic life of their communities (Ackah & Appiah, 2011).

EI for children who are at-risk for or present developmental delays is especially beneficial because the first three years of life are a critical period of cognitive and physical development (Heward, 2016). Intervening during this period can be more

effective and less costly than later in life. In addition to providing support for the child, EI empowers families by providing resources that help them support their child's development. It can also provide connections to other resources for families that might be facing food or housing insecurity or other external stressors (Ramey, 2018).

Early experiences and stimulation are critical for optimal brain development because the brain develops by an “experience-dependent” process, where experience activates certain pathways in the brain and not others (Adams et al., 2013). Experiences early in life are especially crucial in organizing the brain's basic structures, as they create the neural foundation for all subsequent development and behaviour (Adams et al., 2013). If CwSN are not provided with timely and appropriate EI, support and protection, their difficulties become more severe often leading to lifetime consequences, increased poverty and profound exclusion (WHO, 2010). Children receive early childhood services from birth to age three and sometimes beyond. This is the period the brain grows fast and is most responsive to the outside world (WHO, 2010).

These services include physical, occupational, psychological and speech therapy, family support, counseling and education (Adams et al., 2013) and they play a pivotal role in providing crucial learning experiences and also have a long-term, positive effect on children's well-being and academic success (Dawson et al., 2019). Unfortunately the critical period of pregnancy to age three has been given relatively less attention (Barón et al., 2019). To date, most countries have not established comprehensive early childhood systems for early stimulation of child development need (Barón et al., 2019).

Ensuring access to appropriate supports such as early childhood identification and intervention can also fulfill the rights of children with disabilities, promoting rich and fulfilling childhoods and preparing them for full and meaningful participation in adulthood (Barón et al., 2019). For the quality of these services, combined efforts from different stakeholders are most important. Both parents and caregivers have to conduct early childhood stimulation and development activities, beginning at birth, to optimize infants and children's perceptual, physical, mental, language, and social and affective development (Barón et al., 2019). They also have to be supportive, and encouraging while offering appropriate stimulation. Individualized assessment (both formal and informal) is also conducted to identify child's needs (Dawson et al., 2019). Therefore, EI is critical and holds tremendous potential for success. It requires high awareness among health professionals, parents, teachers as well as other professionals working with children (Barón et al., 2019).

Early childhood development allows CwSN to access programmes that facilitate and bolster development and provide a strong foundation for entering school with the social, emotional, and pre-academic skills needed for learning (Mann, 2021). Early childhood education programme helps parents of CwSN to know their contribution in the education of their children because their roles during a child's earliest years is the single biggest influence on their development (Republic of Ghana, 2011). This is why good quality home learning contributes more to children's intellectual and social development. Well-organized inclusive ECD programmes for young CwSN can provide parents with more time to engage in productive work and enable children with disabilities to attend school (UNESCO, 2019).

For example, resilience, or adapting and overcoming an obstacle, can be considered a benefit of an EI programme in that it emphasizes the positivity of EI programmes and the development that can take place (Dawson et al., 2019). Luthar (2020) posited that EI programmes are cost effective and a great preventative measure. Not only do EI programmes help to promote resilience in children, but parents as well (Dawson et al., 2019). EI programmes being implemented and children being evaluated in the first five years of life can help drastically reduce declines in intellectual ability (Guralnick, 2021). This proved to be true for children with Down syndrome and those at biological and environmental risk (Guralnick, 2021).

In the long term, EI programmes can improve scores on developmental measures, strengthen the parent-child relationship and interactions, and provide a means of support for the family. The efficacy of EI in early years has proven to be a significant factor for oral language and literacy in later years. For example, Fricke et al. (2013) focused on vocabulary, phoneme awareness, and letter-sound knowledge through 30 week early intervention sessions given by nursery staff and teaching assistants. The results showed that compared to the waiting control group, the experimental group improved significantly. In addition to child development, programmes may benefit professionals by giving them the opportunity to collaborate more often (Dawson et al., 2019). EI programmes can be used for prevention, remediation, or compensation, providing multifaceted benefits for children (Dawson et al., 2019). EI programmes lead to enhancement in school achievement, higher earnings, lower criminal activity, and greater independence compared to those who did not participate in EI programmes (Guralnick, 2015).

### 2.8.1 Developmental Benefits

Children's development can be broken down into several domains: cognitive, social/emotional, language/communication, motor, and adaptive. Interventions across these developmental domains are provided through home visitation with service providers such as Early Intervention Specialists (EIS) or therapists, or through day programmes that the child attends outside of the home.

**Cognitive Development:** Cognitive development in children refers to a child's ability to learn, remember, and problem solve. Many of the studies that investigate improving cognitive development through EI programmes have followed the day programme model. For example, many of the landmark studies that explore the long-term outcomes of EI used intensive, targeted models, including the Perry Preschool Project, Abecedarian study, and Jamaican study. Although these programmes were all focused on closing achievement gaps and improving overall development, the outcomes were not globally reflective of cognitive development overall (Arkoubi, 2018). While children in the Jamaican study demonstrated progress in their cognitive development in the short term, including school readiness, their long-term outcomes were only positively influenced by the stimulation intervention (Arkoubi, 2018).

Long term, the Perry Preschool Project and Abecedarian study illustrated successful outcomes in areas that are tangentially related to cognitive development such as decreased criminal activity and substance abuse issues, as well as good character skills reported by teachers in later grades of schooling (Arkoubi, 2018). Because cognitive skills influence the other areas of development, when specialists intervene early, they can progress the child's overall growth. Additionally, EI services can target specific cognitive functions such as attention. Similar to the importance of

socio-emotional development, addressing the attachment relationship between caregiver and child proves to foster attention in children (UNESCO, 2019). Intervention services can also be provided by occupational therapists who implement specialized, evidence-based interventions tailored to specifically develop a child's cognitive skills. In a comprehensive study of thirteen programmes involving occupational therapists providing interventions geared towards cognitive development in terms of following routines, attention and other life skills, researchers found short term improvements in the area of cognitive development (Dunst, 2017).

**Social/Emotional Development.** Socio-emotional development in children refers to the child's ability to engage in meaningful social interactions with caregivers and peers as well as form a concept of self and respond to stimuli. One of the biggest components of socio-emotional development in infants and toddlers has to do with attachment, specifically attachment with a primary caregiver. Secure attachment relationships have been linked to better global development across domains, as well as cognitive function and attention in populations of foster children (Heward, 2016). The relationship between caregiver and child can be considered the basis for the socio-emotional development of a child. Although disorganized attachment relationships are not necessarily indicators of abuse or maltreatment, this type of attachment relationship is common among children in this population (Arkoubi, 2018). Moreover, insecure attachment relationships in infancy and early childhood can be predictors of social and behaviour problems later on in a child's life (Arkoubi, 2018). Because of this, many ECI practices involve family coaching that focuses on modeling how to create a secure attachment relationship between a caregiver and child (WHO, 2010). Interventions across these developmental domains are provided through home visitation with service providers such as Early Intervention Specialists

(EIS) or therapists, or through day programmes that the child attends outside of the home.

**Communication/Language Development.** Language development coupled with communication skills are another important focus of ECI because early language intervention is crucial for this population of children at this age because communication is the crux of social interaction. Language development in young children refers to the child's ability to understand and use language. Service providers such as EIS and speech pathologists implement interventions in order to foster language development. Because communication and language are so varied, there are a multitude of different approaches and interventions that target specific needs ranging from nonverbal children to those with more severe diagnosis. For example, research indicates that structured object play has a positive association with intentional communication for children with Autism Spectrum Disorder (UNESCO, 2019).

Additionally, many children qualify for intervention services because of a diagnosed hearing impairment. With listening and spoken-language EI, children with hearing loss have been found to develop communication skills within the same developmental milestones as same-aged peers, which promoted overall social interaction and inclusion for these children (Mann, 2021). Beyond services provided through the home visitation model, day programmes such as Head Start have also indicated success in promoting language development among infants and toddlers through “appropriate language models, expansions, imitations and environmental arrangements” all structured through daily routines when caregivers are supported by a coaching model of quality training (Reichow, 2017). Children can particularly

benefit from these interventions provided through the day programme model because of the increased interaction with peers as well.

**Motor Development.** Motor development in infants and toddlers refers to a child's ability to control and use their muscles in order to perform necessary tasks. Because of the collaborative aspect of ECI, special skills training pertaining to motor development is often delivered by a physical or occupational therapist. Implementing task-specific therapies that support coordination development have positive results for progress in motor skills mainly as a result of the solution-based approach. This type of intervention follows (Arkoubi, 2018). Task-specific training is notably successful in developing functional motor skills among infants and toddlers because of its low-incidence and repetitive nature (Arkoubi, 2018).

Additionally, because the developmental domains are so closely intertwined, children with deficits in cognition or neurological conditions may also be susceptible to motor delays, especially in the context of daily routines. To stimulate motor development in this population of children, interventionists such as physical therapists often plan interventions through common and natural activities that a child is expected to complete during a typical day. These interventions have been successful at improving motor function in adults with similar conditions and are thought to translate to the infant and toddler demographic (Ramey, 2018). Similarly, parents have been found to play a role in promoting the development in motor skills among their own children when taught strategies to implement at home with their children (Guralnick, 2021).

**Health Outcomes.** When teachers have a better understanding of how to support their children's particular needs, they are more successful at caring for their health needs as well, especially if those parents were not previously exposed to the resources and

information they receive through their support services. Moreover, children who have experienced trauma during their toddler years are at risk for more health-related complications than same-aged peers (Mantey, 2017). EI by fostering secure caregiver attachment relationships can mitigate some of these predictors and promote better health outcomes through adulthood (Mantey, 2017). In terms of day programme models, research indicates that teaching nutrition and hygiene in early education contexts can improve overall health outcomes for young children; the more knowledgeable caregivers are about these areas, the better they are able to provide interventions to the children enrolled in day programmes (Dawson et al., 2019).

## **2.9 Challenges Hindering Successful Early Childhood Intervention Services**

According to Winzer (2015), in inclusive pre-school education, infrastructure provides bases for the rest. Once the deficiencies related to infrastructure occur, this may trigger other problems as well. Bowler (2017) stated that one of the sources problems relating to pre-school curriculum implementation is facilities available in the school. Gundogan (2022) in-service trainings that school administrators organized is not enough to abreast pre-school teachers with the current trend of the inclusive childhood curriculum. According to the study, it was revealed that the type of in-service training pre-school teachers receive is not from the field of early childhood education. Thus, the in-service training that teachers participated might not be supportive for them in finding answers for their questions on curriculum implementation. Cisneros et al. (2020) in their study revealed that preschool teachers' had problem in implementing the inclusive early childhood curriculum due to the fact that parents superficial believed that early childhood education is a playing ground for the children not as a learning setting and this attitude resulted in obstacle between the school and home collaboration.

According to Reid et al. (2018), teaching experience of preschool teachers can also be problematic in implementing inclusive childhood education practically. Specific process barriers to the service delivery emerged such as: lack of support, lack of information and lack of continuity of care. Although, the study included a small sample of parents (n=7) the authors carried out in-depth interviews and clearly demonstrated their process of analysis. Bridle and Mann (2020) shared the findings of their conversations with parents of CwSN and found that difficulties occurred when parents felt intervention was imposed on them, rather than being supported to encourage their child to play and develop creatively.

Smith (2018) interviewed nine parents of children with Down syndrome. They found that family-centered EI practice requires parents to take on the role of the child's educator impacting the pedagogic experiences of the parent and the child, which can often lead to conflict. Lodge and Lynch (2014) asserted that lack of appropriate support frequently results in isolation and the dispersal of CwSN throughout the mainstream system in an uncoordinated manner.

Furthermore, Lodge and Lynch (2014) stated that integration without support can lead to negative educational experiences for CwSN. There is a risk that isolation of children with special educational needs, formally or informally, will result in their being viewed differently and negatively by their peers.

Along with class size, the happiness and protection of the child and social inclusion, Heward (2016) highlighted the attitude of teachers as another important consideration cited by parents of CwSN. Many teachers reported anticipation and apprehension and feelings of being ill-equipped, with low levels of knowledge about special education (Mantey, 2017). Mousley et al. (2013) admitted that teachers doubted their own

professional competencies when it came to teaching CwSN, particularly intellectual disabilities. Swain et al. (2012) found that lack of training and experience in special education within teacher preparation courses and programmes can have a profoundly negative effect on educators' attitudes and on their perceived ability to support the inclusion of CwSN. WHO (2010) maintained that there are many gaps between policy and provision regarding inclusive education, and that disability remains a significant factor in exclusion from schooling.

Miles (2022) found that the attitude of society towards CwSN was not considerate and has led to many such students not being enrolled in regular public schools. The reasons for this are mainly superstitious. Disability is seen as a curse or punishment from God, and sometimes it is associated with invasion by an evil spirit. In another study, Akhtar (2014) found that most teachers of mainstream schools felt unsure about teaching these children leading to many hearing impaired students being turned away from such institutions. Teachers in special schools believed that the most appropriate education for these children could only be provided in special schools.

Nawaz and Saeed (2019) conducted a study of perceptions of primary school teachers and found that they were willing to include children who had difficulties in hearing in their schools in separate classes, if resource teachers were available for support. Teachers also sought government support for training, financial incentives and provisions for inclusion in the educational policy.

Hussain and Javed (2017) attempted to develop a plan for the mainstreaming of children with hearing impairment. They observed that inclusion of these children in regular classrooms was acceptable to many education experts in Pakistan. The strategy for inclusion, however, varied from one expert to another. They found that

the special education experts, who were administrators and senior teachers of children with hearing difficulties, were not ready to accept that there were deep-rooted and widespread negative effects of special education institutions on the education of children with hearing impairment and thus advocated for hearing impaired children to be enrolled in special schools.

Sharif and Naz (2022) found that print media had not changed public attitudes to people with hearing difficulties. It is clear that lack of awareness and education among the general public have been mainly responsible for the misconceptions and negative attitudes towards disability leading to low enrolments in regular learning institutions. Parents have mixed opinions about supporting education in special schools and inclusive education settings, whereas most teachers are in favor of providing education in special education settings.

### **2.9.1 Professionally Qualified Caregivers/Teachers**

It is widely acknowledged that early childhood educators with required professional preparation provide more developmentally appropriate, nurturing, and responsive care and education experiences for young children (UNESCO, 2019). This aligns with the submission in an Issue Brief by National Governors Association Centre for Best Practices (2010) that the knowledge and skills of early childhood care providers and teachers are critical factors in their delivery of high-quality developmental and educational experiences to young children. In confirmation of this, Heward (2016) reported the result of a study conducted in 2002 by National Institute of Child Health & Human Development (NICHD) and The Early Child Care Research Network (ECCRN) in which it was found that providers with BA degrees in ECE provided higher quality learning experiences for children in their care.

### **2.9.2 Staff-Child Ratio**

Higher staff-child ratios, referring to a smaller number of children per staff, are usually found to enhance ECE quality and facilitate better developmental outcomes for children (Heward, 2016). When there is higher staff-child ratio, caregivers are able to interact better with children, they experience less stress and they are able to provide more supports to different children's developmental domains. Heward (2018) noted further that higher staff child ratio makes children become more co-operative in activities and interactions and children also tend to perform better in cognitive and linguistic assessments. On the contrary, lower staff-child ratio in ECE settings will make caregivers to give less attention to children with special needs and they will not give optimal performance. This will in turn affect children as children may experience neglect and poor development in all domains. The lower staff child ratio is the scenario in African ECE at pre-primary school level. In fact, in a report series to the UN Special Envoy for Global Education, it was specifically reported that classrooms in early childhood development (ECD) centers in Nigeria are crowded, with an average of more than 130 children per classroom in the North (Miles, 2022).

### **2.9.3 Funding**

Funding needs to be given maximum consideration because it is very crucial to achieving success in any educational enterprise. In ECE, adequate funds need to be made available for provision of many resources and activities which include stimulating materials for teaching, training and re-training of staff (teachers and caregivers), enrichment and sensitization of programmes through regular workshops, monitoring, feeding, immunization, supervision and inspection, report writing, publications, school meals and training manuals among others (Smith, 2018). This indicates that the importance of funding to successful implementation of ECE in

Ghana cannot be overemphasized. The sad thing however is that Ghanaian ECE is ridiculously underfunded. This could be linked to the low budgetary allocation to the education sector in the nation.

#### **2.9.4 Teachers Attitude to Inclusion**

According to the research of Gundogan (2022), majority of teachers who did not implement inclusion practices in their classrooms viewed the idea of inclusion in a negative manner. The teachers identified a number of factors that according to them were problematic, class size, inadequate resources, lack of teacher preparation and the extent that the pupils would benefit from inclusion practices. In comparison, research that investigated attitudes of teachers who had actually experienced inclusion showed that the teachers favored the idea of children with special needs being educated in main stream frameworks (Cisneros et al., 2020). The conclusions indicated that the teacher's positive attitudes were a result of teachers feeling that they had gained professional skills to implement the programmes.

Grace et al. (2018) conducted a research to investigate the daily experiences of mothers and early childhood professionals in an inclusive early childhood programme and indicated that there are serious limitations in the national policy concerning inclusion in early childhood centers. The few number of successful inclusions were due to the quality of the staff and not as a national policy or guidance for practice (Grace et al., 2018). Smith and Smith (2020, p. 21) investigated the perceptions of kindergarten teachers regarding successful inclusion and the themes that arose indicated a list of factors that are central in promising successful inclusion programmes:

- 1) Training including undergraduate teacher preparation, graduate classes, and school district in-service training sessions.
- 2) Class load that included class size, number of students with special needs, severity and range of needs of students, as well as extenuating circumstances.
- 3) Support which included assistance provided by the regular education paraprofessional assigned to the classroom, by the special education staff, and by the building administration.
- 4) Time that included the time needed for planning lessons, adjusting lessons, making or procuring materials for students with special needs, as well as time needed for collaboration with relevant personnel.

#### **2.9.5 Child Factors**

CwSN face constraints resulting from their own physical, emotional and cognitive limitations. These limitations or barriers reside within the individual and can be transient or permanent (Mann, 2021). The child variable explored in existing research relates to the child's special needs, which may be physical, cognitive, emotional, and more. In different countries systems are designed to address the individual's special needs, but services and programmes are provided according to those general categories of disabilities. Various categories of children are placed in typical education settings, and additionally to the special accommodations each individual requires, each population presents specific general requirements for accommodations. For example, children with sensory and motor disabilities are often classified on the basis of severity: those with mild to moderate sensory/motor disabilities may not require extensive special education and related services. As such, they are deemed to manage easily in regular education environments. However, the mobility barrier, such as the need for transfers of children who suffer from more severe motor disabilities, or

the need for learning different languages, such as sign language or Braille in the case of sensory loss, may result in the placement of these students in atypical educational settings. An additional frequent concern is the ability of the regular education environment to meet their needs for special health and personal care (Cisneros et al., 2020).

Children with emotional disabilities may pose problems of their own for the educator in a typical learning environment. Such a child may demonstrate extremely challenging behaviours that distance him or her from others, inhibits communication, interfere with activity performance, and contribute to a negative self-image (Smith, 2018 2019). The teacher must meet those child's needs, in addition to those of the others in the class, who are directly affected by the special education child's behaviours. Sometimes, behaviours of children with Attention Deficit Hyper Activity Disorder (ADHD) pose a similar problem for their teachers. They display chronic behavioural symptoms of inattention, impulsiveness, and hyperactivity may often have difficulty fulfilling an assigned task or following directions and may lack the social skills required to get along with others; this significantly interferes with their own family and peer relationships, as well as their educational and social functioning (Akhtar, 2014).

### **2.9.6 Environmental Factors**

The body of knowledge on human occupation and performance implies close relationships and interactions between person, occupation and environment (Mantey, 2017). One's joining in everyday life accordingly depends on one's engaging in activities in diverse environments with a characteristic that may facilitate or hinder children's participation in the classroom, four categories of environmental barriers to

inclusion can be pointed from literature: attitudinal, architectural, administrative, and programmatic (Heyne, 2023). Many of the teachers' characteristics are variables that could affect their attitude to disabilities, hence to the inclusion of children with disabilities in their classes: age, gender, education level, and years of teaching experience, acquaintance with a person with a disability, having a family member with a disability, or having other contact with a person with disability. Among these, those that correlate most strikingly significantly with teachers' attitudes to inclusion are contact or experience with people with special needs, and amount of teaching experience (Mantey, 2017).

Attitudinal barriers are perceived to be the basis of all other environmental barriers, and are the most difficult to change. They are reflected in misconceptions, stereotypes, labeling, fear from the unknown, resistance, misunderstanding people's rights and opportunities, and further isolation of children with disabilities (Heyne, 2023). Architectural or physical environmental barriers (e.g., lack of elevators, ramps, automatic doors, Braille signage, and telecommunication devices) are more obvious as deterring and restricting the participation of people with disabilities. Administrative barriers may be identified as lack of funding, workload norms, lack of training staff in inclusive practices, lack of adequate transportation, and insufficient funding for coordinated services and individual supports.

The programmatic barrier may include lack of knowledge and ability to assess and provide appropriate support for every individual's needs. Lacks of behavioural teaching techniques, and accommodations of equipment and activities properly suited to children with some types of disabilities, are also frequently observed (Heyne, 2023; Mantey, 2017). The educational system displays a discrepancy between the

administrators' role, which directly affects the architectural, and programmatic factors as well, and the teachers' role. The former is required to address the various needs of diverse populations, while the latter often has to handle the needs of an individual child. This role discrepancy may affect teachers' versus administrators' viewpoints and attitudes, and those of the teachers' may well serve as distinctive factors beyond environmental ones.

### **2.11 Measures to Enhance Fruitful Early Childhood Intervention Services**

CwSN require ECD services to help them achieve their potential. Efforts from the school need to continue to ensure that children's needs are catered for. Schools play a pivotal role in making inclusion work. Hussain and Javed (2017) found that implementation of inclusive education needed proper orientation for regular classroom teachers. Special schools were ready to initiate mainstreaming in their school (reverse mainstreaming). The local context of special institutions was often threatened, politicized and overprotective in connection with innovative plans such as inclusive education. For effective ECD programme implementation, ECD services require multi-stakeholder and multi-sectorial collaboration (Republic of Ghana, 2021). Failing to attend early childhood education programme contributes to the large number of over-aged children in schools that places a large burden on school finances (Republic of Ghana, 2021). Therefore, with the introduction of quality pre-school education, children would be ready to start school on time and would be equipped with the proper preparation and skills to transition through school (Mann, 2021; Republic of Ghana, 2021), less likely to drop out of school and achieve better learning outcomes than children who have not benefited from pre-school education (Republic of Ghana, 2021).

### **2.11.1 Teacher and Parent Training**

Training is required for teachers to support children with disabilities but the level of support available is minimal because most of the time, the support teachers spend their time “repairing” a situation is not up to the maximal (Mantey, 2017). In a research, teachers reported that they did not have the skills to manage the behavioural problems of children with special needs (Reid et al. 2018) and the number of trained teachers were not equivalent to the number of children with disabilities available in the inclusive schools. Therefore, teacher training, experience, attitudes, and knowledge are key indicators of the quality of inclusion, and teachers need to be knowledgeable about and experienced in inclusion practices as they work with children with special needs and attempt to meet the diverse needs of all of the children in their classes (Mantey, 2017).

Teachers also gain knowledge of how to cater for those children with disabilities through coaching in which early childhood professionals share their knowledge and skills each other (UNESCO, 2019). The individualized assessment of children with disabilities is done by trained teachers to identify strengths and needs of students, individualize and modify instruction, evaluate performance outcomes and collaborate effectively with other teachers, supervisors, parents, and related service professionals to prepare CwSN to meet all academic and life goals (Luthar, 2020). However, some teachers reported that they did receive limited support from the school, families, and school counselor (Luthar, 2020).

Stephenson et al. (2012) found that teachers did not receive appropriate practical training in the area of special educational needs. Instruction they received was purely and teachers would like more practical training. Mann (2021) indicated that teachers

lacked the knowledge and skills to work with children with special needs and they especially had difficulty in preparing IEPs. In fact, among barriers to the effectiveness of inclusive education also include teacher workload and lack of training hence, all inclusive schools should cater for these (Luthar, 2020).

More specifically, early childhood teachers need to have training in teaching individualized goals within activities, individualized instruction, and progress monitoring (Luthar, 2020). Teachers also reported an increased level of confidence when additional training is acquired, thus leading to positive outcomes for children in their classrooms (Smith, 2018). Therefore, training is very important for teachers to enhance inclusive education practice from kindergarten to the higher education. The school has the responsibilities to ensure all teachers receive training on special needs education. In addition, for the effectiveness of inclusive education teachers and parents and practitioners work together in early years' setting, the results have a positive impact on children's development and learning (Ramey, 2018).

### **2.11.2 School environment**

Environment should be conducive to all children with and without disabilities in classroom settings. School environment should allow vulnerable children to achieve their potential (Luthar, 2020) and provide to them opportunities for learning, play, participation, peer interaction, recreation, development of friendship and prepare them for their further education and active participation in society (UNESCO, 2019). Inclusive classroom settings may allow children with special needs greater opportunities to initiate play with their typically developing peers than traditional, self-contained special education classroom settings (WHO, 2012). CwSN are often denied early years of primary schooling, and when enrolled due to a lack of inclusive

approaches and rigid systems they often fail, need to repeat and/or are encouraged to dropout during this critical developmental period (UNESCO, 2019). In a research, teachers said that child friendly environment increased the students' motivation (Luthar, 2020). Accommodating and modifying your classroom environment can help children be successful learners and be an active participant in classroom activities.

### **2.11.3 Availability of Resources**

Inclusive schools must recognize and respond to the diverse needs of their children, accommodating both different styles and rates of learning and ensuring quality education to all through appropriate curricula, organizational arrangements, teaching strategies, resource use and partnerships with their communities. There should be a continuum of support and services to match the continuum of special needs encountered in every school (UNESCO, 2010). Addressing the diverse learning needs of all children and students under a universal approach and within a learner friendly environment, fortifies the quest of appropriate and resources available (Heward, 2014). The development of the learning material for children to work with helps the teacher to facilitate learning, without dominating the classroom or intimidating the children.

### **2.11.4 Teaching Methodologies and Learning Styles**

Hornby (2014) mentioned that children vary considerably in the ease with which they learn to read. Some learn with fairly little instructional guidance, whereas others find it to be a nearly impossible undertaking given the instruction traditionally offered in schools. When teachers are trained to acquire the appropriate teaching techniques and skills, appropriate methodologies and pedagogical skills will be used to enhance the development of individual educational needs in the early years (Luthar, 2020). The

child acquires the skill of learning in self-directed way, hence teacher instructional strategies, or teaching methods meet the diverse needs of the children. Developing a good instructional strategy depends on a number of factors such as the developmental level of children, goals, intent and objectives of the teacher, content, and environment including time, physical setting and resources. A single method cannot meet all of our goals nor can a single method accommodate all learning styles at once.

## **2.12 Summary of Literature Review and Identified Gaps**

The literature discussed relevant areas with regards to EI services available to cater for the well-being of CwSN in early childhood settings. The CDT points the need not display lukewarm attitudes concerning the education of these children as it might have a negative impact on their lives in future. Notwithstanding, the social learning theory validated that, when teachers subject interventions such as interacting with them using diverse strategies, it builds their self-esteem which makes them imitate them which in turn results in positive adherence to the society. Globally, previous studies confirm that EI strategies provided to CwSN at early class levels also show the materials used by teachers in the programme to improve learner's skills in different domains. The studies reveal that the quality and effectiveness of EI strategies were the major determinants of the development of CwSN in all aspects of their lives. Meanwhile, the paucity between the needs of CwSN and the provision level of EI in Ghana were not comprehensively evaluated as depicted by the literature. Moreover, the literature verified that that a strong relationship between trained teacher and CwSN has bridged the home-school gap and in turn improved the learner's academic, personal, and health outcomes. Nonetheless, these studies failed to suggest strategies that would promote more quality interactions between parents and teachers over their children's education in order to realize the EFA goals and the MDGs on the basis of better

practices to ensure that. Finally, most of the literature on EI for CwSN were not carried out within the Ghanaian context. This therefore, establishes a gap in literature concerning the area of research within the nation, hence, this current study.



## CHAPTER THREE

### METHODOLOGY

#### 3.1 Introduction

This chapter presents the methodology employed for the study. It presents the research paradigm its approach and design, population of the study, sample and sampling techniques. It also discusses research instrumentation, its validity, piloting and reliability. The chapter finally presents trustworthiness of the interview, data collection procedures, its analysis, and ethical issues.

#### 3.2 Research Paradigm

The term “paradigm” refers to the philosophical assumptions or to the basic set of beliefs that guide the actions and define the worldview of a researcher (Lincoln et al., 2011). Although there are several paradigms or worldviews that structure and organize modern social work research (e.g., post-positivism, constructivism, participatory action frameworks, or pragmatism), they are all essentially philosophical in nature and encompass the following common elements: axiology-beliefs about the role of values and morals in research; ontology-assumptions about the nature of reality; epistemology-assumptions about how we know the world, how we gain knowledge, the relationship between the knower and the known; methodology-shared understanding of best means for gaining knowledge about the world; and rhetoric-shared understanding of the language of research (Creswell, 2009; Lincoln et al., 2011).

This study adopted pragmatism paradigm; a philosophy that embraces plurality of methods. Pragmatism is based on the proposition that researchers should use the philosophical and/or methodological approach that works best for the particular

research problem that is being investigated (Tashakkori & Teddlie, 2008). It is often associated with mixed-methods or multiple-methods (Biesta, 2010) where the focus is on the consequences of research and on the research questions rather than on the methods. A major underpinning of pragmatist epistemology is that knowledge is always based on experience. One's perceptions of the world are influenced by our social experiences. Pragmatist epistemology does not view knowledge as reality (Rorty, 2000). Rather, it is constructed with a purpose to better manage one's existence and to take part in the world (Goldkuhl, 2012). A major underpinning of pragmatist philosophy is that knowledge and reality are based on beliefs and habits that are socially constructed (Yefimov, 2014).

Pragmatists generally agree that all knowledge in this world is socially constructed but some versions of those social constructions match individuals' experiences more than others (Morgan, 2014a). Pragmatism doubts that reality can ever be determined once and for all (Pansiri, 2015). For pragmatists, reality is true as far as it helps us to get into satisfactory relations as to how early childhood interventions for CwSN reflects with our experiences (William, 2020). Truth is whatever proves itself good or what has stood the scrutiny of individual use over time (Ray, 2014). Pragmatists believe that we are free to believe anything that we want, although some beliefs are more likely than others to meet our goals and needs thereby offsetting the weaknesses associated with post-positivist and interpretivist paradigm and utilizing their strengths (Morgan, 2014).

Pragmatism rejects traditional philosophical dualism of objectivity and subjectivity (Biesta, 2010) and allows the researcher to abandon the forced dichotomies that are post-positivism and constructivism (Creswell & Clark, 2011). In pragmatism,

empirical is preferred over idealistic or rationalistic approaches (Morgan, 2014). Rather than assigning post-positivism and constructivism in two different ontological and epistemological camps, pragmatism asks the researcher to focus on the two different approaches to inquire into the early childhood intervention services for CwSN in early childhood centers in Abuakwa Township (Morgan, 2014).

### **3.3 Research Approach**

Research approach is essential as it enables the researcher to focus and look at in-depth of the problem and make a decision on how to solve the problem, naming, and approaching the research topic (Almalki, 2016). This study employed the mixed method approach to explore early childhood intervention services for CwSN in early childhood centers in Abuakwa Township. Mixed methods research is the type of research in which a researcher or team of researchers combines elements and knowledge of qualitative and quantitative research approaches (George, 2021). Mixed method approach combines both qualitative and quantitative research strategies to elicit relevant information from the research participants (Cohen et al., 2011). The quantitative methods of the research involved the use of objective measurements to collect numeric data (Saunders et al., 2012). In quantitative research, data is usually gathered using more structured research instruments. Results are based on larger sample sizes that are representative of the population. Therefore, this aspect of the research involved the use of questionnaire with Likert scale items to collect data from a larger sample with the aim of investigating early childhood intervention services for CwSN in early childhood centers in Abuakwa Township to produce numerical analysis (Cohen et al., 2011). Therefore, this kind of data was collected through questionnaires in order to produce results that allow for generalization and prediction of future results.

Qualitative research deals with the exploratory field visits focusing on in-depth understanding of the social world through detail examination of participants' perceptions and how they subjectively make sense of their contextual experiences regarding early childhood intervention services for CwSN in early childhood centers in Abuakwa Township (Creswell & Clark, 2011). The aim of qualitative research is to collect naturally occurring data by entering the life world of the participants (Burt, 2015). In such research, the researcher becomes immersed in the everyday life of the setting chosen for the study, and seeks participants' perspectives and meanings through ongoing interaction (Cohen et al., 2011). One of the major limitations of the qualitative methods is that the data is limited to a small sample of the population.

Mixed method approach provides the researcher with the opportunity to check the findings from one method against the findings from a different method. The use of more than one method enhances the findings of research by providing a fuller and more complete picture of early childhood intervention services for CwSN in early childhood centers in Abuakwa Township. The benefit of the mixed methods approach in this instance is that the data produced by the different methods can be complementary (Agyedu et al., 2013). Researchers can improve their confidence in the accuracy of findings through the use of different methods to investigate the same subject. According to Biesta (2010, p. 8), quantitative tells us "If"; qualitative tells us "How or why". The data for this study were thus collected at one time rather than over a period of time. This approach was used to balance the weakness of single methodologies since both qualitative and quantitative research approaches have their own weaknesses when used to study early childhood intervention services for CwSN in early childhood centers in Abuakwa Township.

### **3.4 Research Design**

This study adopted a cross-sectional survey. Mugenda and Mugenda (2003) noted that the first step in surveys is to define the questions that are to be answered. Mugenda and Mugenda (2003) defined cross-sectional surveys as a process of collecting data in order to answer questions concerning the current status of a particular phenomenon. The authors posited further that surveys seek to obtain information that describes existing phenomenon by asking individuals about perception, attitudes, behaviour and values. The design was adopted since Creswell (2018) posited that it can be used in preliminary and exploratory studies to allow researchers to gather information, summarize, present and interpret the early childhood intervention services for CwSN in early childhood centers in Abuakwa Township for the purpose of clarification. The design was adopted because it enables researchers to better investigate into the actual associated with early childhood interventions mated out to children with disabilities (Saunders et al., 2012). Finally, it was adopted it was quick and cheap, and also provided vivid answers to early childhood intervention services for CwSN in early childhood centers in Abuakwa Township (Cooper & Schindler, 2011).

### **3.5 Study Area**

The study was conducted in Abuakwa Township, located in the Atwima Nwabiagya Municipal Assembly in the Ashanti Region of Ghana. Abuakwa serves as one of the key peri-urban communities within the municipality, situated approximately 15 kilometers west of Kumasi, the regional capital (Ghana Statistical Service [GSS], 2021). The town is strategically positioned along the Kumasi–Bibiiani highway, making it a vibrant commercial and educational hub that attracts residents from both rural and urban settings. Abuakwa is characterized by a blend of indigenous inhabitants and migrants from various parts of the country, contributing to a culturally

diverse population. According to the 2021 Population and Housing Census, the Atwima Nwabiagya Municipality has a population of approximately 161,892, with a significant proportion being children under 10 years old (GSS, 2021). This demographic profile underscores the growing demand for quality early childhood education and related support services.

Educationally, Abuakwa Township hosts a variety of public and private early childhood centers that provide foundational learning for children between the ages of 3 and 8 years. Many of these institutions operate under the supervision of the Ghana Education Service (GES) and follow the national Early Childhood Care and Development (ECCD) curriculum. However, disparities in infrastructure, teacher qualification, and access to specialized services for children with special educational needs remain evident (Ministry of Education [MoE], 2022). Additionally, the rapid population growth and increasing enrollment in early childhood institutions have placed pressure on existing facilities, making Abuakwa a relevant setting for examining the provision and implementation of early childhood intervention services.

The choice of Abuakwa as the study area is further justified by its unique position as a transitional zone between urban Kumasi and surrounding rural communities. This positioning provides a useful context for understanding how early childhood intervention services are structured and delivered within a setting that embodies both urban and rural characteristics. Moreover, Abuakwa has received limited scholarly attention regarding early childhood intervention, making it an ideal location for generating context-specific insights that can inform educational policy and practice at local and national levels (Anane, 2020; Okyere & Addae, 2020).

### **3.6 Population**

The population of this study consisted of all parents and teachers in Abuakwa Township. The target population comprised all teachers and parents of CwSN from five selected public early centers. Meanwhile, the accessible population comprised only teachers and parents of these children.

### **3.7 Sample and Sampling Techniques**

The study employed both quantitative and qualitative sampling strategies to select participants from early childhood centers in Abuakwa Township. For the quantitative phase, a total of 65 teachers were selected from various early childhood centers. The selection was done using a simple random sampling technique, which ensured that each teacher had an equal chance of being included in the study. This technique was appropriate because it minimizes selection bias and increases the representativeness of the sample, thereby enhancing the generalizability of the findings within the study area (Creswell & Creswell, 2018). Teachers were selected from different schools to reflect diverse experiences, institutional settings, and levels of professional exposure to early childhood intervention practices. In carrying out the simple random sampling, a comprehensive list of all early childhood teachers in Abuakwa Township was first obtained from the Municipal Education Directorate. Each teacher on the list was assigned a unique identification number. These numbers were then entered into a random number generator, after which 65 numbers were randomly selected without replacement. The teachers whose numbers corresponded to the randomly selected numbers were chosen to participate in the study. This procedure ensured that every teacher in the population had an equal and independent chance of being selected, thereby reducing potential researcher bias and improving the reliability of the sample (Creswell & Creswell, 2018; Gall et al., 2017).

For the qualitative phase, 5 teachers and 5 parents were selected using purposive sampling. Purposive sampling was appropriate because the qualitative component of the study sought to obtain in-depth information from participants who possess relevant knowledge and experience regarding early childhood intervention services (Palinkas et al., 2015). Teachers included in this phase were those actively involved in curriculum implementation and intervention activities for children with special needs. Parents were selected because they have firsthand experiences with their children's developmental progress, interaction with school systems, and access to intervention support. Their perspectives provide complementary insights that may not be fully captured through teachers alone.

For the qualitative phase, purposive sampling was carried out by first identifying early childhood centers within Abuakwa Township that had children with special needs enrolled and were actively implementing early childhood intervention services. In collaboration with head teachers, a list of teachers directly engaged in intervention activities and individualized educational programmes was compiled. From this list, five teachers were deliberately selected based on their professional experience, involvement in curriculum delivery, and direct interaction with children receiving intervention services. This approach ensured that participants possessed rich, relevant, and practical insights necessary to address the qualitative research questions (Palinkas et al., 2015; Gall et al., 2017).

Similarly, five parents of children with special needs were purposefully selected through the assistance of class teachers and school records. Selection was based on their active involvement in their children's education, willingness to participate, and ability to provide informed perspectives on their children's developmental progress and the nature of intervention services received. Including parents allowed the study

to capture complementary, home-based experiences that may not be observed by teachers alone. This ensured a more holistic understanding of the implementation and impact of early childhood intervention services from both school and family contexts (Creswell & Poth, 2018; Palinkas et al., 2015).

The inclusion of parents is justified by the crucial role they play in the success of early childhood intervention. Parents are often the first to observe developmental delays and are essential partners in ensuring continuity of support between home and school settings (Epstein, 2018; Hornby, 2020). Engaging parents helps to understand family perspectives on accessibility, cultural attitudes, and the practical challenges of intervention services. Furthermore, parental involvement aligns with best practices in inclusive education, which emphasize collaborative approaches between families and schools to enhance child outcomes (UNESCO, 2021). Their inclusion enriches the study by providing a more holistic and contextualized understanding of early intervention practices in Abuakwa Township.

### **3.8 Instrumentation**

#### **3.8.1 Questionnaire**

A structured questionnaire made up of close-ended items was designed by the researcher to gather data for the study. The questionnaire was personally administered by the researcher and the assistants in order to reduce errors and to ensure high response rate. Two questionnaires were constructed for the study, one for the teachers and the other for the parents. Each of them consisted of Five Sections thus, A, B, C, D, and E. Section A dealt with demographic data of respondents and Section B concentrated on Early Childhood Intervention Services. Section C considered the Rationales behind Early Childhood Intervention Services, Section D presented the Challenges Hindering Successful Early Childhood Intervention Services, whereas

Section E highlighted the Measures to Enhance Fruitful Early Childhood Intervention Services. The instrument was designed using a 5-point Likert-type scale with response made of STRONGLY AGREE=5, AGREE=4, NEUTRAL=3, DISAGREE=2, and STRONGLY DISAGREE=1 for research questions one to three. Similarly, the fourth research question was also constructed using a 5-point Likert-type scale with response made of 1=NO IMPACT (NI); 2=LOW IMPACT (LI); 3=MODERATE IMPACT (MI); 4=ADEQUATE IMPACT (AI); and 5=A VERY HIGH IMPACT (AVHI). The primary reason for using a Likert scale is that it enables researchers to code data with ease (Colosi, 2016). The questionnaires were used because it was suitable for a wider coverage, produces reliable information, and help to reduce bias from the participants (Gall et al., 2017). Jankowicz (2020, p. 222) asserted that “questionnaires are particularly useful when researchers want to contact relatively large numbers of people to obtain data on the same issue or issues often by posing the same questions to all” as adopted by this study. With hand-delivery as used in this study, the researcher was able to check to find out who actually responded to the questionnaire at the collection point (Saunders et al., 2012, p. 420). Finally, the questionnaire enabled the researcher to collect data in a pre-arranged form which can be readily analyzed (Kumar, 2015).

### **3.8.1 Semi-Structured Interview**

In order to explore individual opinions and gain deeper insight into the situation (Skovdal & Cornish, 2015), an individual in-depth, face-to-face semi-structured interview was conducted by the researcher. In accordance with suggestions in the qualitative research literature (Kvale & Brinkmann, 2019; Wolcot, 2015), the researcher began the interviews with a semi-structured thematic guide. The researcher started with general open-ended questions based on the themes and then gradually

probed deeper with more specific questions based on participant responses. The interview unlike the questionnaire was in Four Sections. Section A concentrated on Early Childhood Intervention Services, Section B sought to find out the rationales behind Early Childhood Intervention Services, Section C addressed the Challenges Hindering Successful Early Childhood Intervention Services, whereas Section D probed the Measures to Enhance Fruitful Early Childhood Intervention Services. In all, interviews were conducted for all the participants. Each interview took place at a time and place chosen by the participant in either the local Ghanaian Language or English depending on the preference of the participant. The interviews lasted for about 50 minutes with each participant. The interviews allowed the researcher to gain in-depth information concerning the early childhood intervention services for CwSN in early childhood centers in Abuakwa Township (Creswell, 2018).

### **3.9 Validity, Piloting, and Reliability of Instruments**

#### **3.9.1 Validity**

Content and face validity were ensured in this study. Mugenda and Mugenda (2003) defined validity as how accurate the data obtained in a study represents variables of the study. This is the accuracy and meaningfulness of inferences that are based on research results. This is the degree to which results obtained from the analysis of the data actually represents the phenomenon under study. Creswell (2018) posited that validity is the extent to which an instrument measures what it purports to measure. Mugenda and Mugenda (2003) stated that a researcher should develop accurate measures or instruments and standardize data collection procedures by holding a training session for everybody who will eventually be involved in the data collection exercise. Content validity refers to the degree to which the content of the items reflects the content domain of interest. Creswell (2018) noted that because there was

no statistical test to determine whether a measure adequately covers a content area or adequately represents a construct, content validity usually depends on the judgment of the experts in the field. Expert judgment was used to assess the content validity of the instruments by handing over the instrument to my supervisor and two other Senior Lecturers in the Department of Early Childhood Education, University of Education, Winneba to scrutinize it vividly. After the validation process, all the statements that were verbose, grammatically wrong, and or out of content were rewritten. On the other hand, face validity on the other hand refers to how an instrument appears in the “eyes” of research participants (Creswell & Creswell, 2018). In ensuring the face validity like the content validity, the instruments were handed to my supervisor to evaluate it. Afterwards, all the necessary corrections were made..

### **3.9.2 Piloting of Instruments**

Accidental sampling was employed to select ten (10) respondents from Ogbojo D/A Primary School, an area whose EI for CwSN situation is similar to that of the study area and the instruments were piloted on them. This was done to determine reliability especially that of the questionnaire and to assist the researcher to identify the setbacks such as negative wordings that may result from the instruments as well to make the necessary corrections before they are administrated to the actual research respondents. The researcher embarked on this process because Bryman (2012) acknowledged that piloting any research instrument is very crucial as it exposes ambiguities and other probable pitfalls.

### **3.9.3 Reliability of Questionnaire**

Reliability refers to the extent to which results are consistent over time and an accurate representation of the total population under study can be reproduced under a

similar methodology (Joppe, 2020). This attribute of the instrument is referred to as stability. A high degree of stability indicates a high degree of reliability implying that the results are repeatable. After the piloting, the responses were fed into Version 26 of Statistical Package of the Social Sciences (SPSS) by employing Cronbach Alpha and a co-efficient value of 0.85 was obtained. This researcher therefore considered the instrument to be reliable enough for data collection since its value falls within the acceptable hallmark all reliable instruments (McMillan & Schumacher, 2010).

### **3.10 Trustworthiness**

Strategies for collecting data in qualitative research such face-to-face in-depth interview that was used in this study is designed to be explorative, often involving continuous contacts between the researcher and the participants (Silverman, 2013; Green & Thorogood, 2014). This leads to the development of a researcher-participant relationship that eventually makes the researcher become involved in generating and interpreting information (Creswell, 2018). Qualitative research approach therefore, accepts the role of researchers in generating knowledge and does not claim complete objectivity in its practice. This exposes qualitative research to criticism from research traditions such as quantitative research that is steeped in logical positivistic philosophy and emphasizes objectivity and statistics rather than personal interpretations of data (Golafshani, 2013). The lack of objectivity however does not compromise the quality and integrity of qualitative research findings. As long as researchers openly identify the values and biases that they bring to the study and take conscious steps to reduce the extent to which they influence the knowledge generated, trustworthiness can be improved (Kvale & Brinkmann, 2019). Trustworthiness of qualitative data refers to the extent of confidence that a qualitative researcher takes to ensure that data was ethically collected, analyzed and reported (Pansiri, 2015). Below

were some of the procedures adopted by the researcher to reduce his influence on the participants and the research process during the process of collecting and analyzing data.

### **3.10.1 Reflexivity**

Qualitative research understands that the researcher is an important instrument in collecting, describing and interpreting information and could therefore; also be an important influence on the overall outcome of the research. In this sense, Carlson (2010) observed that it is an important requirement of qualitative researchers to utilize reflexivity; a conscious process of self-reflection in which researchers recognize that they have significant influences on the research development and participant engagement (Råheim et al., 2016). Doing this, according to Kvale (1996), could help reduce biased subjectivity in which researchers avoid reporting evidence that contradicts their own expectations, opinions, and conclusions. In this study, the researcher was fully aware and acknowledged that the role that she played in this research was influenced by her educational and professional backgrounds and experiences. Coming from a professional educational background, the researcher had an experience in taking the lead role in early childhood intervention-like situations and explaining issues to participants and therefore, took a larger share of power during the interview process.

Another challenge that has been identified in qualitative research data collection is unequal power relations between interviewers and interviewees with interviewers often dominating and exerting influence on interviewees consciously or unconsciously thereby compromising responses (Creswell, 2009; Green & Thorogood, 2014). Being aware of this, the researcher made sure that interview

resembled “normal” discussion by playing the role of a moderator. The researcher consciously avoided assuming any position of power or dominance but rather only moderated the discussion by intermittently introducing the issues to be discussed and leaving participants to recount their experiences and interpretations. This conscious awareness was maintained throughout the research process including during the entire data collection process. Reflecting on these made the researcher watchful and observant, taking care not to let my own biases or personal circumstances affect the information obtained from the participants or my interpretation of things. The researcher brought herself to the level of the participants. At all times, the researcher made it a point to assure participants that their views and experiences are respected by informing them that, “I am learning from them”.

### **3.10.2 Quality Assurance**

#### **Credibility, Dependability, Transferability, and Confirmability**

The use of terms “validity”, “reliability”, “generalizability”, and “objectivity” are quite contested in qualitative research. The controversy is because of their quantitative connotations and their deep roots in positivistic philosophy (Golafshani, 2013). Despite this, Given and Saumure (2018) purport that, the concepts of the terms; credibility, dependability and transferability are crucial for ensuring trustworthiness. It is therefore imperative to address these concepts as applied to this study.

Credibility is defined as the determination of the extent to which a measurement instrument actually measures what it is intended to measure (Long & Johnson, 2020). It is a concept used to indicate the credibility (to use qualitative terminology) of the information produced in research. Indeed, Given and Saumure (2018) note that the term credibility instead of validity is often preferred in qualitative research circles due

to the fact that while validity, as used in quantitative terms, reflects the accurate 'measurement' of a variable, credibility reflects accurate or thick description of a phenomenon. According to Creswell (2018), validity is established through member-checking (a procedure in which refined parts of interviews are taken back to participants to establish the accuracy of the meanings a researcher has given to themes and descriptions) in qualitative research data. Pansiri's (2010) argument informed the researcher's decision to go for interviews to build a tripod of data sources. The multiplicity of sources inherently afforded triangulation and tied in well with the ontology of the qualitative research approach used for the study. Member checking was done through a confirmatory and repetitive pattern of questioning and discussion during the interviews to ensure that respondents re-confirmed the experiences they were recounting.

Reliability of research data is described by Green and Thorogood (2009) as referring to accuracy and consistency in collecting, coding and reporting of data as well as thoroughness of analysis. Also, a contested concept, qualitative research establishes reliability (preferably called dependability in qualitative terms) in ways that are different from other research paradigms like the quantitative paradigm. Creswell (2009) suggested steps such as peer debriefing (explaining one's analyses and conclusions to colleagues) and auditing of the decision trail (where a researcher presents details of all procedures to the final conclusions of the study sources for others to evaluate the worth of the study by following the lines of action) as good for improving reliability in qualitative research. In order to improve dependability in this study, the researcher used the same semi-structured thematic guide in all interviews to ensure that the participants responded to similar questions thereby maintaining consistency throughout those phases of data collection. All interviews were carried

out by the researcher herself. In order to reduce the extent to which the researcher's own experiences in the field influences her findings, the project supervisor read through the data transcripts and we held discussions of the analysis, findings and conclusions for feedback purposes. The researcher also made it a point to give a clear, step-by-step presentation of all procedures, decisions and action in the study report in a bid to improve dependability.

Green and Thorogood (2014) concurred that generalizability is the extent to which the account of a particular situation or population can be extended to other persons, times or settings other than those studied. Whilst this concept is important to other research paradigms, Polit and Beck (2010) note that qualitative research does not necessarily aim to generalize but, rather, to provide rich, contextualized understanding and insight of some aspect of human experience by intensively and systematically studying particular cases.

Deeply believing in the subjectivity or uniqueness of human experience, qualitative researchers do not subscribe to claims that their research findings can be taken out and applied to other contexts or settings. However, findings obtained from individual qualitative studies like this present one adds to already existing qualitative research literature on the subject of investigation. Together, this body of literature potentially generalizes across contexts (Skovdal & Cornish, 2015). The intention with which this study was conducted was therefore not that of broad generalization, but rather that of providing rich, context-specific descriptions the early childhood intervention services for CwSN in early childhood centers in Abuakwa Township in the context of Ghana. Added to existing qualitative literature on this topic, the findings here can help

provide broader generalizations as Kvale (1996) notes that the findings of qualitative studies may, through analytical generalization, be applied to other situations.

In view of this, qualitative researchers are encouraged to provide sufficient evidence to allow readers to make critical assessments of the extent to which the study's findings could apply in another setting. In keeping with this, the researcher strived to provide sufficient evidence through a step-by-step presentation of her research steps and thick descriptions of the participants account to allow readers make their own critical assessments and analytical generalizations.

Confirmability as used in qualitative research to mean objectivity is a neutral criterion for measuring the trustworthiness of qualitative research. If a study demonstrates credibility and fittingness, the study is also said to possess confirmability (Speziale & Carpenter, 2011). In ensuring confirmability, the researcher ensured that she puts aside her opinions in the analysis of the data by reading the transcripts over and over again such that the researcher became familiar with the ideas therein, which was evident in the description of the data analysis process as presented in the report. Also, the researcher ensured that justifications were provided for the methodology used for the study by referencing appropriate authors and giving a clear description of the manner that the data was collected and analyzed such that readers can find it easy to decide on the acceptability of the findings.

### **3.11 Data Collection Procedures**

An introductory letter from the Head of Department, Department of Early Childhood Education, University of Education, Winneba was obtained to seek permission from institutional heads of the various institutions likewise the parents. The researcher selected the participants during Parent Teacher Association (PTA) meeting at the

study sites. The participants were given explanation of the purpose of the research, sought for their consent, likewise the intended use of the data. Thereafter, they were assured of confidentiality and anonymity. Explanations were given to participants on the statements on the questionnaire. The questionnaire was personally administered by the researcher and her assistants. Before the administration of the questionnaire, the researcher explained the core intent of each of the Sections to the respondents. Due to the large sample, wide area, and diverse individuals involved for the study, the researcher used three weeks in collecting the quantitative data.

A one-on-one interview followed the administration of the questionnaires. The researcher sought the permission of the participants to record the discussion using a voice recorder to gather the qualitative data. In order to get a clear and audible recording as well as not being eluded of any valuable data, two voice recorders were tested to ensure they were functioning and used for the study. This approach was adopted because of unexpected malfunctioning in the course of the discussion, the other would be used. Also, the voice recorders were well positioned by the researcher. The interview lasted for about 50 minutes with each participant. Field notes were also taken to support the recording of the interview. The researcher used two weeks in collecting the qualitative data.

### **3.12 Data Analysis Techniques**

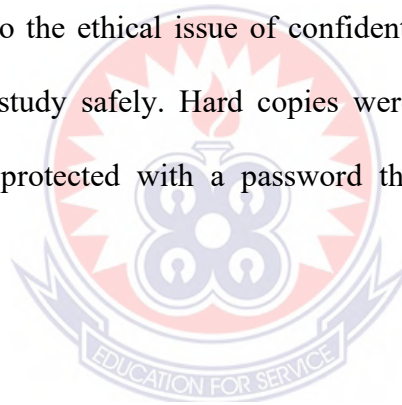
Version 26 of SPSS was used to analyze the data obtained from the questionnaire. The data was analyzed using various statistics including measures of central tendency such as means, standard deviations, distribution including simple percentages and frequencies. Analyzing data using measures of central tendency helps researchers to determine the exact judgment to base their facts (Creswell & Creswell, 2018).

In contrast, all data from interviewees were audio-recorded with the consent of participants and stored in password-protected folders on the researcher's personal computer. The researcher performed all translations and transcriptions himself before merging the final textual data from audio recordings. To increase reliability in qualitative data analysis, Parker (2011) suggested that researchers strive to maintain consistency in the coding process. In the coding process, inter-coder reliability is suggested as crucial for increasing reliability (Ray, 2014). To this end, a coding team comprising three Master of Philosophy students using qualitative methods for their research and myself set up to code the data individually. The team met after all members had completed their coding to discuss the codes for agreement. Coding disagreements were thoroughly discussed until consensus was reached. The analyses were done following a thematic analysis approach. Pansiri (2015) noted that qualitative analysis processes such as thematic analysis allows for a transparent presentation of research results by laying bare the degree of transformation of data from description to interpretation. Thus, despite criticisms of thematic analysis approaches as poorly branded and lacking concrete existence relative to analysis approaches like content analysis (Creswell, 2018), it has the ability to help identify, analyze and report patterns within textual data (Braun & Clarke, 2006). Finally, the researcher's view based on the data were elaborated on and backed with related literature.

### **3.12 Ethical considerations**

Ethical issues arise from the kind of problems that social scientists investigate and the methods used to obtain valid and reliable data. Ethical considerations were pertinent to this study because of the nature of the problem, the methods of data collection and the kind of persons serving as research participants. While carrying out this study,

cognizance was considered of the fact that this study would be investigating very a sensitive issue and as such followed ethical procedures suggested by (Tom, 2017). McLeod (2011) advised that researchers should ensure that participants are protected from any physical or psychological harm that may arise from research procedures. In line with international best practices in education, the researcher revealed the intentions of the study to the participants and sought informed consent for their participation. The researcher verbally assured the participants of anonymity of their identities and confidentiality of the data gathered from the respondents. In addition, the researcher also promised to assign them pseudonyms during the writing of the report. All the participants interviewed agreed before commencing the research. In addition, with regard to the ethical issue of confidentiality, the researcher stored all information from the study safely. Hard copies were locked in a cabinet and soft copies stored in files protected with a password that was only accessible to the researcher.



## CHAPTER FOUR

### RESULTS AND DISCUSSION

#### 4.1 Introduction

The chapter presents results and the discussion of the data collected from the respondents for the purpose of answering the research questions and hypotheses. It is in Two Sections thus, A and B. Section A considers the demographic information about the respondents whilst Section B presents the analysis and discussion of the research questions.

#### 4.2 Section A: Demography of Respondents

**Table 4.2: Demographic Information of Teachers**

<b>Demography</b>	<b>Categories</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Gender	Female	58	89.2
	Male	7	10.8
		<b>65</b>	<b>100</b>
Age (in years)	Less than 30 years	4	6.2
	31-40 years	45	69.2
	41-50 years	10	15.4
	51-60 years	6	9.2
		<b>65</b>	<b>100</b>
Highest Educational Level	Diploma	43	66.2
	Bachelor's Degree	20	30.8
	Masters	2	3.1
	Doctorate	0	0.0
		<b>65</b>	<b>100</b>
Years of Working Experience	1-5 years	5	7.7
	6-10 years	10	15.9
	11-15 years	35	53.8
	16-20 years	10	15.9
	21 years and above	5	7.7
		<b>65</b>	<b>100</b>
Marital Status of Respondent	Single	4	6.2
	Married	45	69.2

Divorced	10	15.9
Separated	1	1.5
Widowed	5	7.7
	<b>65</b>	<b>100</b>

**Source:** Researchers Fieldwork Data (2024)

It can be deduced from the data in Table 4.2 that, out of the 65 teachers who took part in the study, majority, 89.2 % (n=58) were females and the remaining 10.8% (n=7) were males. It suggests that females occupy most early grade classes than males. The age distribution of the administrators is shown also in Table 4.2. The outcome reveals that majority, 69.2% (n=45) were between 31-40 years. Also, 6.2% (n=4) were less than 30 years, 15.4% (n=10) were between ages 41-50 whereas the remaining 9.2% (n=6) were between 51-60 years. From the above data, majority of the respondents are more than 30 years. The highest educational level of the respondents is shown further in Table 4.1. The outcome revealed that majority of them 66.2% (n=43) are diploma holders, 30.8% (n=20) are degree holders, 3.1% (n=2) had the masters degree whilst none of them held any the doctorate certificate. It implies that the result from the quantitative data is likely to be geared towards the views of the diploma holders.

Moreover, the respondents were asked to indicate their number of years of teaching experience. The outcome portrayed that majority 53.8% (n=35) of them have worked for 11-15 years, 7.7% (n=5) have worked for 1-5 years, and 15.9% (n=10) had worked between 6-10 years. Finally, the remaining 15.9% (n=10) had worked for 16-20 years whilst the remaining 7.7% (n=5) had worked over 21 years and above. It can be inferred from this data that majority of the respondents have at least more than 5 years of working experience. Considering this, it makes them apt for the study since they have witnessed in one way or the other how to handle these children. The marital status of the respondents in Table 4.1 established that majority of them 69.2% (n=45)

are married, 4.2% (n=4) are single, 15.9% (n=10) are divorced, whilst 1.5% (n=1) had separated. Finally, 7.7% (n=5) are widowed.

### 4.3: Section B: Analysis of Data

#### 4.3.1: Research Question 1: What are the early childhood intervention services available for children with special needs in Abuakwa Township?

The core intent of this research question was to explore the rate at which early childhood intervention services is made available for children with special needs in Abuakwa Township. In determining it, mean and standard deviation analysis was carried out to establish it. The result is presented in Table 4.3.1.

**Table 4.3.1: Availability of Early Childhood Intervention Services**

Premise	M	SD
Health and social services are rendered to the children on regular basis	4.07	1.20
Individualized Educational Programme is readily available in my school	4.20	1.17
Speech therapy is meted out to the children frequently	3.53	1.40
Home visits are done with ease	3.47	1.51
Nutritional counseling is always carried out	4.13	1.03
Psychological services are frequently done	2.43	2.48
Assistive technology devices and services are always provided to the children	4.17	0.98
Early childhood assessment and placement are readily done with ease	2.07	1.83
Day programmes are done effectively	4.27	0.89
Family support is always provided to the children	3.93	1.36

**Source:** Researcher's Fieldwork Data (2024) M=Mean SD=Standard Deviation Intervention Available when  $M \geq 3.41$

Low Standard Deviation (below 1.0): High consistency in responses.

Moderate (Steady) Standard Deviation (1.0–1.4): Some differences in experiences across respondents.

High Standard Deviation (above 1.5): Significant variability, indicating uneven implementation or differing perceptions.

From the data in Table 4.3.1, it establishes vividly that respondents view concerning the assertion “Health and social services are rendered to the children on regular basis” as a degree to which the intervention is available yielded ( $M=4.07$ ,  $SD=1.20$ ). It reveals that majority of the teachers verified that health and social services are readily available to these children. It signals that an early intervention service rendered to children with disabilities are health and social services. In addition, it came into light that the statement “Individualized Educational Programme is readily available in my school” produced ( $M=4.20$ ,  $SD=1.17$ ). This suggests that majority of the respondents documented that Individualized Educational Programme is readily available in their school.

Moreover, respondents’ view concerning the assertion “Speech therapy is meted out to the children frequently” resulted in ( $M=3.53$ ,  $SD=1.40$ ). It depicts clearly that majority of the respondents verified that speech therapy is meted out to the children repeatedly. “Home visits are done with ease” ended up with ( $M=3.47$ ,  $SD=1.51$ ). This points out clearly that majority of the respondents indicated that home visits to the family and or relatives to these children are effective. Furthermore, the assertion “Nutritional counseling is always carried out” came out with ( $M=4.13$ ,  $SD=1.03$ ). It suggests that majority of the respondents documented that nutritional counseling is always carried out for the better welfare of these children.

In addition, respondents view on “Psychological services are frequently done” yielded ( $M=2.43$ ,  $SD=2.48$ ) makes it evident that the respondents noted that psychological services are frequently are seldom meted out to these children. Subsequently, it came into light that the assertion “Assistive technology devices and services are always provided to the children” produced ( $M=4.17$ ,  $SD=0.98$ ). It suggests that majority of the respondents attested to the fact that assistive technology devices and services are

always provided to the children within the various schools. Moreover, on respondents' view regarding the statement "Early childhood assessment and placement are readily done with ease" resulted in ( $M=2.07$ ,  $SD=1.83$ ) depicts clearly that the respondents noted that early childhood assessment and placement are readily done with ease.

"Day programmes are done effectively" ended up with ( $M=4.27$ ,  $SD=0.89$ ). It points out clearly that majority of the respondents indicated that day programmes are done effectively. Finally, the statement "Family support is always provided to the children" opinions from respondents came out with ( $M=3.93$ ,  $SD=1.36$ ). It signals that the respondents attested to the fact that family assistance is always provided to these children.

### **Qualitative Data: Research Question 1**

#### **Effectiveness of early childhood intervention services available for children with special needs**

This theme evolving from research question one highlights how effective the early intervention for children with special needs are meted out to the children with special needs. The following assertions were made by the participants to verify the claim. In fact, majority of the participants declared that nutritional counselling is made available to these children due to their condition. This was followed by the following comments.

*I make sure that these children eat well-balanced meals. I make their parents aware of what they should eat because at this age and their condition, failure on their part to eat nutritious meals may affect them negatively (Teacher 4).*

A parent buttressed by saying

*I make sure that my child is not malnourished in any way. I make this a core mandate (Parent 1).*

It emerged also that all the participants concluded that home visitations are rendered the children regularly. In wrapping it up, the pronouncements made by the participants echoes that as for home visitations, these children are fortunate to have them.

To keep these children on track, all the participants came out that they provide these children with play materials either at home and or in school. They all shared similar experiences that due to the nature of their condition, play materials are the only things that can assist them.

In fact, all the teachers made pronouncements on what they undertake to meet the needs of these children. In summary, their statement is *I make sure that these students feel happy all times at school to eradicate the notion that they cannot perform the same way as their peers without any disabilities.*

All the participants said that they allow these children to mingle with their peers both at home and at school to enable them to be sociable. A teacher came out that:

*When these children are at school, whether in class and or break time, I ensure that they are not isolated from their peers. I tell the other children to play with them (Teacher 3).*

A parent also echoed:

*Considering the condition of my child, I make sure that they play with the children around us at home (Parent 4).*

In summary, nutritional counselling is made available to the children, home visitations are rendered the children regularly and also provide them with play materials. Finally, both parties make sure that they feel excited at all times likewise allowing them to mingle with their peers both at home and at school to enable them to be sociable.

### 4.3.2: Research Question 2: What are the rationales behind early childhood intervention services provided for children with special needs in Abuakwa Township?

Central to this research was to examine the rationales behind the early childhood intervention services provided for children with special needs in Abuakwa Township.

The outcome is presented in Table 4.3.2.

**Table 4.3.2: Rationale behind Early Childhood Intervention Services**

Premise	M	SD
Development of the child's motor skills	4.47	.83
It has a positive influence on their language development	4.33	0.89
It helps to develop their social skills and gives them experience	4.40	.66
Serves as a catalyst for the development of a culture of positive attitudes towards children with special needs	3.90	1.40
Provides mutual benefits for the child, his/her parents and families, educators and professionals	4.50	.57
Supports the child to achieve developmental and academic success similar to their same-aged peers	3.47	1.67
Assists the child to adjust well in school and also be effective in future schooling	3.20	1.42
Promotes the child's higher-order thinking and creativity	4.53	0.76
Increases the child's pro-social behaviours as well as decreasing his/her negative behaviours	4.50	1.06
Reduces the effects of disabilities on the child and also prevents the occurrence of learning and developmental problems later in life	3.43	1.60

**Source:** Researcher's Fieldwork Data (2024) M=Mean SD=Standard Deviation  
Becomes a Rationale when  $M \geq 3.41$

Low Standard Deviation (below 1.0): High consistency in responses.

Moderate (Steady) Standard Deviation (1.0–1.4): Some differences in experiences across respondents.

High Standard Deviation (above 1.5): Significant variability, indicating uneven implementation or differing perceptions.

It can be deduced from the data in Table 4.3.2 that the statement "Development of the child's motor skills" as a rationale behind the early childhood intervention services

produced ( $M=4.47$ ,  $SD=0.83$ ). This makes it evident that majority the respondents documented that a benefit behind early childhood intervention services is the improvement in the children's motor skills. In addition, the statement "It has a positive influence on their language development" resulted in ( $M=4.33$ ,  $SD=0.89$ ). It points out clearly that majority of the respondents noted that it has a positive influence on their linguistics.

It was further revealed by the data that the statement "It helps to develop their social skills and gives them experience" came out with ( $M=4.40$ ,  $SD=0.66$ ). This signals that majority of the respondents' cherished that another rationale is that it assists them to develop their social skills and gives them experience. The data again shows that the assertion "Serves as a catalyst for the development of a culture of positive attitudes towards children with special needs" yielded ( $M=3.90$ ,  $SD=1.40$ ). The implication is that majority of the respondents indicated that the programme acts as a medium for the development of a culture of positive attitudes towards these children.

Furthermore, it was established that the statement "Provides mutual benefits for the child, his/her parents and families, educators and professionals" produced ( $M=4.50$ ,  $SD=0.57$ ). It means that majority of the respondents attested to the fact that the intervention provides mutual benefits for the child, his/her parents and families, educators and professionals. Moreover, it was confirmed that the statement "Supports the child to achieve developmental and academic success similar to their same-aged peers" came out with ( $M=3.47$ ,  $SD=1.67$ ). It purports that majority of the respondents indicated that the intervention supports the child to obtain developmental and academic success similar to their same-aged peers.

Furthermore, the statement “Assists the child to adjust well in school and also be effective in future schooling” as another rationale ended up with ( $M=3.20$ ,  $SD=1.42$ ). The implication is that the respondents were not certain as to whether the intervention aids the child to adjust well in school and also be effective in future schooling. Moreover, the statement “Promotes the child’s higher-order thinking and creativity” yielded ( $M=4.53$ ,  $SD=0.76$ ). It illustrates that majority of the respondents attested to the fact that the intervention improves the child’s higher-order thinking and creativity. To add, it came into light that the assertion “Increases the child’s pro-social behaviours as well as decreasing his/her negative behaviours” produced ( $M=4.50$ ,  $SD=1.06$ ). This establishes the fact that majority of the respondents noted that a major rationale is that, it increases the child’s pro-social behaviours as well as decreasing his/her negative behaviours. Finally, respondents view on “Reduces the effects of disabilities on the child and also prevents the occurrence of learning and developmental problems later in life” yielded ( $M=3.43$ ,  $SD=1.60$ ) makes it evident that the respondents verified that the intervention declines the effects of disabilities on the child and prevents the occurrence of learning and developmental problems later in life.

## **Qualitative Data: Research Question 2**

### **Theme Two: Rationales behind the early childhood intervention services**

The prime intent of this theme was to find out the significance of early childhood intervention services to supplement the quantitative data revealed by research question two.

According to the participants, the service have numerous benefits not only to the child but to other stakeholders as a whole. The following comments were made:

*Without this service rendered to these children, I know for sure that they may not feel eager to come to school (Teacher 3).*

A parent said:

*My child feels eager to attend school regularly because she told me that their madam has told the other children to play with her (Parent 5).*

It also came into light that the service improves upon the academic outcomes of the children. Indeed, both parties mentioned that the service had improved upon the academic success of these children.

In addition, all the respondents confirmed that the service had made their children sociable. The following statements verify this claim:

*Nowadays, my child likes asking me many questions. Gone were the days, he was not having any speech therapy and he was not feeling like talking to me. But now, he likes chatting papa (Teacher 5).*

*You will not believe that these children are socially oriented until you provide them with these services. You will observe wonderful things about them (Parent 1).*

It was also confirmed by all the participants that the intervention makes it easier for both parents and the teachers to handle them. The following statements were made to verify the claim.

*I do not have to stress myself when chatting with my child anymore (Parent 4).*

*In my classroom setting, handling these children is not all that stressful compared to some year ago (Teacher 2).*

All the participants concludes that the service is very critical to the development of the brain of the child. They made several sentiments with regards to how the service plays a tremendous role to the cognitive development of these children. In summary, proper development of the brain of stem from early childhood intervention services. Finally, both parties concluded that it improves the health outcomes of these children.

They all said that when teachers and parents have a better understanding on how to assist their children's needs, they are more fruitful at caring for their health needs as well. The service fosters secure caregiver attachment relationships can mitigate some of these predictors and promote better health outcomes through adulthood.

To wrap it up, the significance of early childhood intervention services making the children feel eager to attend school, improves upon the academic outcomes of the children, makes them sociable. It was also confirmed by all the participants that the intervention makes it easier for both parents and the teachers to handle them, develops the brain of the child, and also improves their health outcomes.



### 4.3.3: Research Question 3: What challenges if any hinder successful implementation of early childhood intervention services provided for children with special needs in Abuakwa Township?

The prime intent of this research question was to ascertain the challenges hindering successful implementation of early childhood intervention services provided for children with special needs in Abuakwa Township. The result is presented in Table 4.3.3.

**Table 4.3.3: Challenges Hindering Successful Implementation of Early Childhood Intervention Services**

Premise	M	SD
Lack of appropriate instructional materials	3.50	1.44
Teachers low levels of knowledge about special education	4.47	.83
Lack of parental involvement	3.50	1.63
Negative attitudes of teachers and parents	3.53	1.72
Low quality of parent-professional relationship	4.07	.83
Insufficient funding	4.40	.91
Lack of special training for teachers handling children with special needs	3.67	1.53
Large class sizes	4.47	.83
Inadequate teaching experience of preschool teachers	4.33	.89
Lack of information and lack of continuity of care	4.07	1.22
Attitude of society towards children with special needs	4.40	0.83
Child-related factors which in turn makes teachers to be fed up	4.10	0.96
Environmental barriers within the school and classrooms	4.41	0.85

**Source:** Researcher's Fieldwork Data (2024) M=Mean SD=Standard Deviation  
Challenge Manifests when  $M \geq 3.41$

Low Standard Deviation (below 1.0): High consistency in responses.

Moderate (Steady) Standard Deviation (1.0–1.4): Some differences in experiences across respondents.

High Standard Deviation (above 1.5): Significant variability, indicating uneven implementation or differing perceptions.

Data from Table 4.3.3 depicts clearly that the statement “Lack of appropriate instructional materials” as a challenge hindering successful implementation of early childhood intervention services provided for children with special needs in Abuakwa Township resulted in ( $M=3.50$ ,  $SD=1.44$ ). It suggests that majority of the respondents did attest to the fact that absence of appropriate instructional materials contributes to the situation. In addition, respondents view on the statement “Teachers low levels of knowledge about special education” yielded ( $M=4.47$ ,  $SD=0.83$ ). It makes it evident that majority of the respondents documented that early childhood teachers low levels of knowledge about special education leads to the situation.

Moreover, the statement “Lack of parental involvement” produced ( $M=3.50$ ,  $SD=1.63$ ). It authenticates that majority of the respondents indicated that another potential challenge is lack of active parental involvement contributes to it. Moreover, respondents’ view concerning the statement “Negative attitudes of teachers and parents as another challenge resulted in ( $M=3.53$ ,  $SD=1.72$ ). It depicts clearly that majority of the respondents documented that negative attitudes of teachers and parents is another hindrance to the situation.

“Low quality of parent-professional relationship” as a potential hindrance ended up with ( $M=4.07$ ,  $SD=0.83$ ). This point that majority of the respondents indicated that meagre quality of parent-professional relationship drawback the effectiveness of the intervention. Furthermore, the statement “Insufficient funding” came out with ( $M=4.40$ ,  $SD=0.91$ ). It signals that majority of the respondents indicated that insufficient funding is a major contributor to the situation. It was further found that respondents view concerning the statement “Lack of special training for teachers handling children with special needs” yielded ( $M=3.67$ ,  $SD=1.53$ ). It means that

majority of the respondents verified that absence of special training for teachers dealing with children with special needs result in the situation. In addition, respondents' idea about the statement "Large class sizes" produced ( $M=4.47$ ,  $SD=0.83$ ). It shows that majority of the respondents documented that large class sizes pose challenges to teachers in their quest to carry out the intervention successfully. In addition, respondents view on "Inadequate teaching experience of preschool teachers" yielded ( $M=4.33$ ,  $SD=0.89$ ) makes it evident that the respondents cherished that inadequate teaching experience of preschool teachers is a prime contributor to the situation.

Subsequently, it came into light that the assertion "Lack of information and lack of continuity of care" produced ( $M=4.07$ ,  $SD=0.1.22$ ) suggests that majority of the respondents verified that lack of information and lack of continuity of care is another hindrance to the effectiveness of the programme. Moreover, on respondents' view with regards to the statement "Attitude of society towards children with special needs" resulted in ( $M=4.40$ ,  $SD=0.83$ ). It depicts clearly that the respondents noted that societal attitudes toward children with special needs poses several challenges in dealing with the situation. Notwithstanding, it was established that the assertion "Child-related factors which in turn makes teachers to be fed up" came out with ( $M=4.10$ ,  $SD=0.96$ ). It purports that majority of the respondents documented that pupil- related factors makes teachers to be fed up due to the challenging nature in handling these children. Finally, respondents view on "Environmental barriers within the school and classrooms" yielded ( $M=4.41$ ,  $SD=0.85$ ) makes it evident that the respondents cherished that environmental barriers within the school and classrooms is a major contributor to the situation.

### **Qualitative Data: Research Question 3**

#### **Theme three: Challenges to early childhood intervention services**

The core intent of this theme which was derived from the third research question was to fish out the challenges to early childhood intervention services. Similar to challenges facing the educational sector across the nation, EI is not an exception. All the participants mentioned that there are inadequate teaching and learning materials to handle these children. Some statements made were:

*There are insufficient teaching and learning materials to handle these children (Teacher 2).*

*Materials to keep these children on track are not adequate (Parent 2).*

In addition, the participants verified that the overcrowded nature of pupils in the classrooms hinders the success of the service to be rendered to these children. The following sentiments verify the claim:

*My classroom is fully filled. Since every individual should be considered within the classroom, it becomes extremely challenging for me to attend to the needs of these children accurately (Teacher 1).*

*Considering the number of children in class, the teacher told me that I should visit the school occasionally to assist my child because the workload is high (Parent 5).*

Furthermore, all the participants noted that the lack of professional teachers to handle these children has led to the development of poor attitudes amongst teachers.

Statements made include:

*Most teachers do not understand how to handle these children so they end up treating them like their peers without disabilities (Parent 3).*

*Sometimes, I feel reluctant to provide the service to these children not that I do not wish to but my knowledge concerning the handling of these children is limited (Teacher 5).*

Moreover, the participants confirmed that the behavioural aspects of some of these children poses several challenges to them in their quest to provide them with the service. They all mentioned that some of these children displays unusual attitudes when you try helping them. Furthermore, they said they are sometimes left in the dark when some of these children exhibit withdrawal symptoms when they want to render the service to them.

Finally, the participants revealed that parental involvement concerning the service is very low. The participants shared that in fact, majority of the parents will just bring their child to school and leave them on the teachers thinking that it is the sole role of the teachers to handle these child. A bitter experience shared by the participants is that teachers are being paid so they are the ones that should carry out the intervention.

In summarizing, the challenges to early childhood intervention services included inadequate teaching and learning materials to handle the children, overcrowding of pupils in classrooms, lack of professional teachers, behavioural aspects of some of the children, and withdrawal symptoms displayed by the children. Finally, it was revealed that parental involvement concerning the service is very low.

#### 4.3.4: Research Question 4: What challenges if any hinder successful implementation of early childhood intervention services provided for children with special needs in Abuakwa Township?

The primary aim of this research question was to assess the measures that can enhance fruitful implementation of early childhood intervention services provided for children with special needs in Abuakwa Township. In establishing it, mean and standard deviation analysis was carried out. The result is outlined in Table 4.3.4.

**Table 4.3.4: Measures to Enhance Fruitful Early Childhood Intervention Services**

Premise	M	SD
The Ministry of Education should allocate adequate teaching and learning materials to all inclusive early childhood settings	4.40	.83
Teachers and parents need to co-construct a shared of reference to support collaboration	4.53	.83
Adequate training should be provided for teachers to support children with disabilities	4.47	.74
Teachers should be equivalent to the number of children with disabilities available in schools	4.33	.90
There should be adequate support from the school, families, and school counselor	4.53	.64
The school environment should be conducive to all children with special needs	4.40	.91
Teachers should use appropriate teaching strategies for teaching children with special needs	4.47	.83
There should be effective school partnerships with the community	4.30	.94
Professionals should always develop learning materials for all children with special needs	4.67	.63
Teachers should use appropriate teaching techniques and skills	4.33	.82

**Source:** Researcher's Fieldwork Data (2024) M=Mean SD=Standard Deviation Becomes a Potent Measure when  $M \geq 3.41$

Low Standard Deviation (below 1.0): High consistency in responses.

Moderate (Steady) Standard Deviation (1.0–1.4): Some differences in experiences across respondents.

High Standard Deviation (above 1.5): Significant variability, indicating uneven implementation or differing perceptions.

Data in Table 4.3.4 shows vividly that the statement “The Ministry of Education should allocate adequate teaching and learning materials to inclusive early childhood settings” resulted in ( $M=4.40$ ,  $SD=0.83$ ). It sends the signal that majority of the respondents indicated that when the Ministry of Education allocate adequate teaching and learning materials to all inclusive early childhood settings, it can assist in curbing the situation. In addition, the data reveal that the assertion “Teachers and parents need to co-construct a shared of reference to support collaboration” yielded ( $M=4.53$ ,  $SD=0.83$ ). It verifies that majority of the respondents indicated that teachers and parents need to co-construct a shared of reference to support collaboration to drive the name of the situation into the mud. Furthermore, it came into light that the statement “Adequate training should be provided for teachers to support children with disabilities” produced ( $M=4.47$ ,  $SD=0.74$ ). It means that majority of the respondents strongly documented that another way of curbing the situation is by providing enough training for teachers to support children with disabilities.

Moreover, it was established that the statement “Teachers should be equivalent to the number of children with disabilities available in schools” came out with ( $M=4.33$ ,  $SD=0.90$ ). It purports that majority of the respondents notified that there should be a balance between teachers and the number of children with disabilities available in schools.

The data further show that the assertion “There should be adequate support from the school, families, and school counselor” produced ( $M=4.53$ ,  $SD=0.64$ ). It suggests that majority of them disclosed that when there is an adequate support from the school, families, and school counselor, the problem can be dealt with effectively.

Furthermore, it was established that the assertion “Teachers should use appropriate teaching strategies for teaching children with special needs” came out with (M=4.40, SD=0.91). This opines that majority of the respondents indicated that when a potential remedy to solve the situation is for teachers to use appropriate teaching strategies for teaching children with special needs. Moreover, the statement “There should be effective school partnerships with the community” came out with (M=4.47, SD=0.83). It signals that majority of the respondents confirmed that effective school partnerships with the community can curb the situation. In addition, respondents view on “Professionals should always develop learning materials for all children with special needs” yielded (M=4.30, SD=0.94). It makes it evident that majority of the respondents verified that specialists should always develop learning materials for all children with special needs to eradicate the situation.

Finally, it came into light that the assertion “Teachers should use appropriate teaching techniques and skills” produced (M=4.67, SD=0.63). It suggests that majority of the respondents attested to the fact that a way of dealing with the situation is for teachers to employ appropriate teaching techniques and skills.

### **Qualitative Data: Research Question 3**

#### **Theme Four: Enhancing fruitful implementation of early childhood intervention services**

This theme emanating from research question four highlights potential measures to ensure fruitful implementation of early childhood intervention services. All the participants mentioned that adequate training should be provided for teachers handling these children. They mentioned that training is required for teachers to support children these children. Therefore, teacher training, experience, attitudes, and knowledge are key indicators of the quality of inclusion, and teachers need to be

knowledgeable about and experienced in inclusion practices as they work with children with special needs and attempt to meet the diverse needs of all of the children in their classes.

The participants also mentioned that the school environment should be made conducive to all children with disabilities in classroom settings. They added that it provides them opportunities for learning, play, participation, peer interaction, recreation, development of friendship and prepare them for their further education and active participation in society. A teacher shared that:

*Inclusive classes should be structured in such a way that it is welcoming considering the needs of children with disabilities (Teacher 1).*

A parent mentioned that:

*The creation of a welcoming classroom and school environment that is friendly enough makes the implementation of the service very successful (Parent 3).*

Another measure that was mentioned by all the participants was that the schools must realize and pay heed to the diverse needs of these children, accommodate their different styles by making available the necessary resources. A parent said that:

*With the proper and adequate resources provided, the implementation of the programme will be easier (Parent 4).*

A teacher also mentioned that:

*Every programme requires adequate resources to make its implementation successful (Teacher 2).*

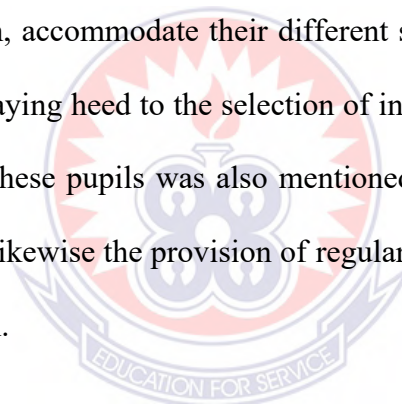
Paying heed to the selection of instructional approaches to meet the learning styles of these pupils was also mentioned as a measure to enhance the success of the service. The participants mentioned that children vary considerably in the ease with which they learn to read. Therefore, when teachers select appropriate teaching techniques and skills it will assist them to handle the needs of these children easily. Finally, the

participants mentioned that regular in-service training should be provided to teachers handling these children. The following sentiments confirms this claim:

*When we are given training regularly, it may keep us on track on how to handle these children both at home and at school (Teacher 2).*

*In-service training plays pivotal roles to the success of any programme and early childhood intervention is not an exception (Parent 1).*

Potential measures to ensure fruitful implementation of early childhood intervention services included the provision of adequate training for teachers handling the children, making the school environment conducive to all children with disabilities in classroom settings, whereas schools must realize and pay heed to the diverse needs of these children, accommodate their different styles by making available the necessary resources. Paying heed to the selection of instructional approaches to meet the learning styles of these pupils was also mentioned as a measure to enhance the success of the service likewise the provision of regular in-service training to teachers handling these children.



#### **4.4 Discussion**

##### **4.5.1 Effectiveness of Early Childhood Intervention Services**

The findings revealed that EI services rendered to the children were quite effective. The findings agree with Hornby (2014) who stated that EI for CWSN is a support programme for young children and their families that include health and social services in which families and field experts collaborate. In addition, EI programmes include; educational and medical services for diagnosis, evaluation and support; health and nursing services; nutritional counseling; psychological services; and assistive technology devices and services. Furthermore, services can support the family in terms of family training, counseling, home visits, service coordination,

special instruction, transportation and related costs (Lanzi et al., 2017). An IEP is an important legal document that spells out the child's learning needs, the services the school will provide and how progress will be measured. Several people, including parents (multidisciplinary team) are involved in creating the document. The process is a way to sort out the child's strengths and weaknesses (Mann, 2021). Moreover, one of the models of ECI programmes is the practice of home visits by service teachers to families. Home visitations are targeted for each individual and family. According to the child's specific needs, various services will be provided as organized by a designated service coordinator who is responsible for maintaining a relationship with the family (Heyne, 2023). Day programmes are generally more focused on a child's cognitive development in the short term (school readiness) and their socio-emotional, language and health benefits in the longer term (Zigler & Hall, 2021).

Motor development and positioning and the development of communication skills are often target areas for young children with physical disabilities (Miles, 2022). Additionally, all EI disciplines, play becomes a major focus of professional services for children with developmental delay and special needs. Play serves as a process for learning, a process for assessing developmental skill sets, and a process for delivering intervention procedures to improve a child's developmental and learning abilities (McNaughton, 2014). In other words, EI may involve establishing developmentally appropriate play skills themselves as a goal and using play as a means of achieving other goals (Grace et al., 2018).

Finally, peer mediated interventions focus on deliberately utilizing typically developing peers to promote the ability of children with disabilities to engage in social interactions with them (Smith & Smith, 2020). In peer-mediated interventions,

teachers train typically developing peers to socially initiate with children with disabilities, as well as to persist in their efforts, by providing prompts and reinforcement to the peers for their social interaction behaviours (Gundogan, 2022).

#### **4.5.2 Rationale behind Early Childhood Intervention Services**

The findings established that EI has significant impacts on the child, their parents and the society at large. These findings corroborate Eikeseth (2018) who reported that EI programmes for CwSN supports them to achieve developmental and academic success similar to their same-aged peers. The speech therapy helps the autistic children to understand and follow instructions after going through the treatment (Batool & Ijaz, 2015). In addition, the speech therapy services also can improve the interpersonal skills, psychological well-being of the children after going through the intervention (Roulstone et al., 2012).

In furtherance, EI focuses on early developmental skills that are precursors for current and later school success (Miles, 2022), it can also help to minimize the effects of the disabilities or risk and maximize the child's development. In this way, it helps to enhance the child's potential for independence in adulthood (Bailey et al., 2016). According to Ramey (2018), there were improvements in children's learning outcomes when the EI programmes are intensive and systematic with parents being the active partners in their children's developmental progress. Finally, when intervention starts early rather than late, it is likely to be more effective in the child's learning outcomes and also less costly in the long run (Bailey et al., 2016).

Moreover, Omumu (2012) stated that there are three primary reasons for intervening early in a child's with disability: i) to enhance the child's development; ii) to provide support and assistance to the family, and iii) to maximize the child's intervention and

family's benefit to society. Omumu (2012) further stated that EI programmes have a significant impact on the parents and siblings of infant or young child with disability. EI can result in parents having improved and positive attitudes, positive information and skills, and more leisure time for themselves and their children with disability. Similarly, Heward (2016) found that EI reduces the effects of disabilities or prevents the occurrence of learning and developmental problems later in life for children presumed to be at risk for such problems. It provides support for the child and family that will help prevent the child from developing additional problems or disabilities.

Early experiences and stimulation are critical for optimal brain development because the brain develops by an "experience-dependent" process, where experience activates certain pathways in the brain and not others (Mann, 2021). When teachers have a better understanding of how to support their children's particular needs, they are more successful at caring for their health needs as well, especially if those parents were not previously exposed to the resources and information they receive through their support services. Moreover, children who have experienced trauma during their toddler years are at risk for more health-related complications than same-aged peers (Mann, 2021). EI by fostering secure caregiver attachment relationships can mitigate some of these predictors and promote better health outcomes through adulthood (Mann, 2021). Finally, secure attachment relationships have been linked to better global development across domains, as well as cognitive function and attention in populations of foster children (Akhtar, 2014). The relationship between caregiver and child can be considered the basis for the socio-emotional development of a child.

#### **4.5.3 Challenges Hindering Successful Early Childhood Intervention Services**

Several challenges ranging from human and material resources were found to be hindrance to successful implementation of EI services. These findings agree Gezahegne and Yinebeb (2011) who found that insufficient funding is the biggest drawback to the implementation of major programmes like inclusive education in many countries. Furthermore, challenges like in teachers' training programmes, teachers' attitudes, materials and equipment provision, are also factors that affect EI for CwSN. The study also revealed that the attitudes of the teachers were positively or negatively affected by the extent of a disability, either minor or complicated, in carrying out their duties diligently. Likewise, lack of special training and class size are the other challenges (Gezahegne & Yinebeb, 2011).

Similarly, Peters (2023) carried out a comparative study on inclusive education between developing and developed countries on behalf of the World Bank. The author focused on attitudes of teachers in the classrooms ignoring other problems children with disabilities face in accessing education and found out that besides having necessary training skills attained from teacher training colleges; teachers must have a good will. Insufficient knowledge, expertise, experiences and training in the early intervention programmes are reported as the barriers in this programme (Bari et al., 2016). Cisneros et al. (2020) in their study revealed that preschool teachers' had problem in implementing the inclusive early childhood curriculum due to the fact that parents superficial believed that early childhood education is a playing ground for the children not as a learning setting and this attitude resulted in obstacle between the school and home collaboration.

According to Reid et al. (2018), teaching experience of preschool teachers can also be problematic in implementing inclusive childhood education practically. Specific process barriers to the service delivery emerged such as: lack of support, lack of information and lack of continuity of care (Benner, 2013). Along with class size, the happiness and protection of the child and social inclusion, Egan (2014) highlighted the attitude of teachers as another important consideration cited by parents of CwSN. A number of researchers (McNaughton, 2014; Purdy & McGuckin 2013) raises the issue of appropriate training and preparation for teachers in mainstream classes. Many teachers reported anticipation and apprehension and feelings of being ill-equipped, with low levels of knowledge about special education (Rosenberg et al., 2018). Aslan (2015) admitted that teachers doubted their own professional competencies when it came to teaching CwSN, particularly intellectual disabilities. Fantuzzo et al. (2016) found that lack of training and experience in special education within teacher preparation courses and programmes can have a profoundly negative effect on educators' attitudes and on their perceived ability to support the inclusion of CwSN.

Moreover, higher staff-child ratios, referring to a smaller number of children per staff, are usually found to enhance ECE quality and facilitate better developmental outcomes for children (Bailey et al., 2019). When there is higher staff-child ratio, caregivers are able to interact better with children, they experience less stress and they are able to provide more supports to different children's developmental domains. Finally, WHO (2010) stated that majority of teachers who did not implement inclusion practices in their classrooms viewed the idea of inclusion in a negative manner. The teachers identified a number of factors that according to them were problematic, class size, inadequate resources, lack of teacher preparation and the extent that the pupils would benefit from inclusion practices.

#### **4.5.4 Measures to Enhance Fruitful Early Childhood Intervention Services**

Several measures ranging from financial, expertise, and the development of positive attitude and the creation of conducive environs were found to enhance the success of EI. These findings mimics Morina (2017) who contended that in ECE, adequate funds need to be made available for provision of many resources and activities which include stimulating materials for teaching, training and re-training of staff (teachers and caregivers), enrichment and sensitization of programmes through regular workshops, monitoring, feeding, immunization, supervision and inspection, report writing, publications, school meals and training manuals among others. In addition, training is required for teachers to support children with disabilities but the level of support available is minimal because most of the time, the support teachers spend their time “repairing” a situation is not up to the maximal (Zucker, 2010). Environment should be conducive to all children with and without disabilities in classroom settings. School environment should allow vulnerable children to achieve their potential (Zucker, 2010) and provide to them opportunities for learning, play, participation, peer interaction, recreation, development of friendship and prepare them for their further education and active participation in society (UNESCO, 2019). Moreover, inclusive schools must recognize and respond to the diverse needs of their children, accommodating both different styles and rates of learning and ensuring quality education to all through appropriate curricula, organizational arrangements, teaching strategies, resource use and partnerships with their communities. There should be a continuum of support and services to match the continuum of special needs encountered in every school (UNESCO, 2019). Finally, when teachers are trained to acquire the appropriate teaching techniques and skills, appropriate

methodologies and pedagogical skills will be used to enhance the development of individual educational needs in the early years (Groce, 2023).



## CHAPTER FIVE

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### 5.0 Introduction

This chapter presents the summary of the study and its key findings, conclusions, recommendations based on the results, and other suggested areas to be studied.

#### 5.1 Summary of the Study

This study explored the early childhood intervention services for children with special needs in selected early childhood centers in Abuakwa Township.

The study sought to:

1. What are the early childhood intervention services available for children with special needs in Abuakwa Township?
2. What are the rationales behind early childhood intervention services provided for children with special needs in Abuakwa Township?
3. What challenges if any hinder successful implementation of early childhood intervention services provided for children with special needs in Abuakwa Township?
4. What measures are in place to enhance fruitful implementation of early childhood intervention services provided for children with special needs in Abuakwa Township?

Critical Disability Theory and the social learning theory of Bandura (1986) were adopted for the study. Pragmatism rooted in the mixed method approach was selected for the study. Cross-sectional survey was the design used for the study. A structured questionnaire with a reliability co-efficient value of 0.85 and semi-structured interview guide were the instruments used to gather data for the study. The

quantitative data was analyzed using Version 26 of SPSS by employing means, standard deviations, simple percentages and frequencies. The qualitative data was analyzed thematically.

## **5.2 Summary of Key Findings**

A number of significant findings were established by the study. On the early childhood intervention services made available for children with special needs, the quantitative data revealed that health and social services are rendered to the children on regular basis, speech therapy is provided to them likewise psychological services. It was also established that early childhood assessment and placement, day programmes likewise family support was being carried out. The qualitative data confirmed that nutritional counselling is made available to the children, home visitations are rendered to the children regularly and also provided with play materials. Finally, the qualitative data established that both parents and teachers make sure that the children feel excited at all times likewise allowing them to mingle with their peers both at home and at school to enable them to be sociable.

The questionnaire established that early childhood intervention services provided for children with special needs in Abuakwa assists in the development of their motor skills, has positive influence on their language development, and also assist them to develop their social skills and gives them experience. In addition, it was found that the service acts as a catalyst for the development of a culture of positive attitudes towards children with special needs, provides mutual benefits for the child, his/her parents and families, educators and professionals and also supports the child to achieve developmental and academic success similar to their same-aged peers. Finally, it was found that EI services promote the child's higher-order thinking and creativity,

increases their pro-social behaviours as well as decreasing his/her negative behaviours and also reduces the effects of disabilities on the child and also prevents the occurrence of learning and developmental problems later in life. The interview revealed that EI services make the children feel eager to attend school, improves upon their academic outcomes and also makes them sociable. Finally, the intervention makes it easier for both parents and the teachers to handle them, develops the brain of the child, and also improves their health outcomes.

The challenges hindering successful implementation of early childhood intervention services provided for children with special needs in Abuakwa Township as revealed by the questionnaire included; (i). lack of appropriate instructional materials, (ii). teachers low levels of knowledge about special education (iii). lack of parental involvement and negative attitudes of teachers and parents, (iv). low quality of parent-professional relationship, (v). insufficient funding, (vi). lack of special training for teachers handling children with special needs, (vii). large class sizes, (viii). inadequate teaching experience of preschool teachers, (ix). lack of information and lack of continuity of care, (x). attitude of society towards children with special needs, (xi). child-related factors that in turn makes teachers to be fed up, and (xii). environmental barriers within the school and classrooms were potential challenges. The qualitative data established that (i). inadequate teaching and learning materials to handle the children, (ii). overcrowding of pupils in classrooms, (iii). lack of professional teachers, (iv). behavioural aspects of some of the children, and (v). withdrawal symptoms displayed by the children and low parental involvement all draw back the success of the service.

The measures that can enhance fruitful implementation of early childhood

intervention services as revealed by the questionnaire are that; the Ministry of Education should allocate adequate teaching and learning materials to inclusive early childhood settings, teachers and parents need to co-construct a shared of reference to support collaboration, whereas adequate training should be provided for teachers to support children with disabilities. In addition, teachers should be equivalent to the number of children with disabilities available in schools, there should be adequate support from the school, families, and school counselor, teachers should use appropriate teaching strategies for teaching children with special needs and there should be effective school partnerships with the community. Finally, professionals should always develop learning materials for all children with special needs likewise teachers employing appropriate teaching techniques and skills. The interview confirmed that there should be the provision of adequate training for teachers handling the children, making the school environment conducive to all children with disabilities in classroom settings, whereas schools must realize and pay heed to the diverse needs of these children, accommodate their different styles by making available the necessary resources. Finally paying heed to the selection of instructional approaches to meet the learning styles of these pupils was also mentioned as a measure to enhance the success of the service likewise the provision of regular in-service training to teachers handling these children.

### **5.3 Conclusions**

The study concludes that early childhood intervention (EI) services play a crucial role in supporting the development and inclusion of children with special needs in Abuakwa Township. The findings revealed that a variety of EI services are provided in early childhood centers, including health and social services, speech therapy, nutritional counseling, psychological services, individualized educational

programmes, day programmes, and family support. These services collectively contribute to the holistic development of children with special needs, addressing their cognitive, social, emotional, and physical domains. Both quantitative and qualitative data affirmed that these interventions are instrumental in making children feel excited about learning, improving their social interactions, and enhancing their academic readiness. This highlights the significance of early intervention as a foundational step towards inclusive education and lifelong development.

Furthermore, the study concludes that EI services positively influence children's motor skills, language development, social competence, and creativity. They also serve as a catalyst for building positive societal attitudes toward children with disabilities. The intervention services provide mutual benefits to children, parents, teachers, and professionals, promoting collaborative relationships and supporting the achievement of developmental and academic outcomes comparable to those of typically developing peers. These services also foster pro-social behavior, reduce negative behaviors, and minimize the long-term effects of disabilities, demonstrating that well-structured EI programs can significantly improve educational and health outcomes for children with special needs.

However, the study concludes that several critical challenges hinder the successful implementation of EI services in Abuakwa Township. These include inadequate instructional materials, lack of specialized teacher training, insufficient funding, limited parental involvement, negative attitudes, overcrowded classrooms, environmental barriers, and weak parent-professional relationships. These challenges reflect systemic and resource-related issues that affect the quality and consistency of intervention services, ultimately impacting the learning experiences of children with

special needs. Addressing these challenges is essential for ensuring that EI programs achieve their intended outcomes effectively.

Finally, the study concludes that enhancing EI services requires a multi-faceted approach involving all key stakeholders. Adequate provision of teaching and learning materials, continuous professional development for teachers, collaborative partnerships between parents and educators, and supportive policies from the Ministry of Education are crucial for improving service delivery. Creating inclusive and conducive learning environments, adopting appropriate instructional strategies, and ensuring equitable teacher-to-pupil ratios are also necessary measures. By implementing these strategies, early childhood centers can strengthen their capacity to provide effective and inclusive intervention services that meet the diverse needs of children with special needs, laying a solid foundation for their future learning and development.

#### **5.4 Recommendations**

The following recommendations were made based on the conclusions drawn.

1. The findings established that both parties thus, parents and teachers render EI services to children with special needs to enhance their better well-being and development. Therefore, it is recommended that parents and teachers in Abuakwa Township should not rest on their oars but rather put in more efforts in order to render the apt EI services to CwSN to have positive impacts on their psychological, mental, social, motor, etc. well-being.
2. In addition, the findings revealed that EI services for CwSN is drawn back by human and financial challenges. Therefore, it is recommended that all stakeholders in Abuakwa Township should make it their core mandate to put

in efforts in providing the required human and capital resources to ensure that they will be able to provide the apt EI services to all early grade CwSN.

3. Furthermore, the findings revealed that inexperience on the part of early grade teachers render them incapable in providing EI services for CwSN. As such, it is recommended that, the Ministry of Education should organize in-service training for teachers in Abuakwa Township regularly to aid them support children with disabilities.
4. Finally, inadequate teaching and learning materials were established as potential factors harnessing the successful implementation of EI services for CwSN. Therefore, it is recommended that, the Ministry of Education should allocate adequate teaching and learning materials to all inclusive early childhood settings in Abuakwa Township.

### **5.5 Suggestions for Further Research**

The following areas can be investigated into:

1. A similar study should be carried out but its scope should be extended to enhance more generalizability of the findings.
2. Another study should be conducted on parental involvement in education of early grade children with disabilities.
3. Finally, another study should be conducted to investigate the challenges faced by teachers when delivering the early grade curriculum in Abuakwa Township.

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## APPENDIX A

### UNIVERSITY OF EDUCATION, WINNEBA

Questionnaire for Teachers

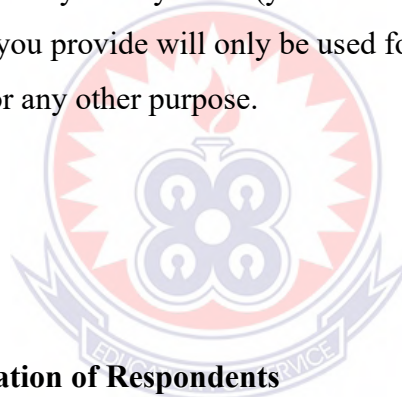
**Topic: Exploring Early Intervention Services for Children with Special Needs in Selected Early Childhood Centers in Abuakwa Township**

This questionnaire is intended to solicit your view about “**Exploring Early Intervention Services for Children with Special Needs in Selected Early Childhood Centers in Abuakwa Township**”

I would appreciate it very much if you answer these questions frankly. The purpose of this study is purely academic. I assure you that your responses will be treated as confidential and completely anonymous (you will not be identified in any way). Whatever information you provide will only be used for the purposes of this study and thus will not be used for any other purpose.

Sincerely yours,

Gladys Kisseh



#### **Demographic Information of Respondents**

Kindly tick [] the most appropriate

1. Gender

Male []

Female []

2. Age

Less than 30 years [] 31-40 years [] 41-50 years [] 51-60 years []

3. Highest Educational Level

Diploma [] HND [] Degree [] Masters [] Doctorate []

## 4. Years of Working Experience

1-5 years [ ] 6-10 years [ ] 11-15 years [ ] 16-20 years [ ] 21 years and above [ ]

## 5. Marital Status of Respondent

Single [ ] Married [ ] Divorced [ ] Separated [ ] Widowed [ ]

## RESEARCH QUESTIONS

### SECTION B: Early Childhood Intervention Services

In your opinion, verify the effectiveness of early childhood intervention services rendered to children with special needs in your school.

Please indicate the extent to which you **Agree**, **Uncertain**, or **Disagree** with the following statements. Kindly tick [✓] the most appropriate STRONGLY AGREE (SA) = 5, AGREE (A) = 4, UNCERTAIN (U) = 3, DISAGREE (D) = 2, and STRONGLY DISAGREE (SD) = 1

#### Early Childhood Intervention Services

PREMISE	SA	A	U	D	SD
Health and social services are rendered to the children on regular basis					
Individualized Educational Programme is readily available in my school					
Speech therapy is meted out to the children frequently					
Home visits are done with ease					
Nutritional counseling are always carried out					
Psychological services are frequently done					
Assistive technology devices and services are always provided to the children					
Early childhood assessment and placement are readily done with ease					
Day programmes are done effectively					

Family support is always provided to the children					
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**Others:** Please specify .....

**SECTION C: Rationales behind Early Childhood Intervention Services**

In your view, what are the rationales behind early childhood intervention services rendered to children with special needs in your school?

Please indicate the extent to which you **Agree**, **Uncertain**, or **Disagree** with the following statements. Kindly tick [√] the most appropriate STRONGLY AGREE (SA) = 5, AGREE (A) = 4, UNCERTAIN (U) = 3, DISAGREE (D) = 2, and STRONGLY DISAGREE (SD) = 1

**Rationales behind Early Childhood Intervention Services**

<b>PREMISE</b>	<b>SA</b>	<b>A</b>	<b>U</b>	<b>D</b>	<b>SD</b>
Development of the child’s motor skills					
It has a positive influence on their language development					
It helps to develop their social skills and gives them experience					
Serves as a catalyst for the development of a culture of positive attitudes towards children with special needs					
Provides mutual benefits for the child, his/her parents and families, educators and professionals					
Supports the child to achieve developmental and academic success similar to their same-aged peers					
Assists the child to adjust well in school and also be effective in future schooling					
Promotes the child’s higher-order thinking and creativity					
Increases the child’s pro-social behaviours as well as decreasing his/her negative behaviours					
Reduces the effects of disabilities on the child and also prevents the occurrence of learning and developmental problems later in life					

**Others:** Please specify .....

**SECTION D: Challenges Hindering Successful Early Childhood Intervention Services**

In your view, what challenges hinder successful early childhood intervention services for children with special needs in this school?

Please indicate the extent to which you **Agree, Uncertain, or Disagree** with the following statements. Kindly tick [√] the most appropriate STRONGLY AGREE (SA) = 5, AGREE (A) = 4, UNCERTAIN (U) = 3, DISAGREE (D) = 2, AND STRONGLY DISAGREE (SD) = 1

**Challenges Hindering Successful Early Childhood Intervention Services**

<b>PREMISE</b>	<b>SA</b>	<b>A</b>	<b>U</b>	<b>D</b>	<b>SD</b>
Lack of appropriate instructional materials					
Teachers low levels of knowledge about special education					
Lack of parental involvement					
Negative attitudes of teachers and parents					
Low quality of parent-professional relationship					
Insufficient funding					
Lack of special training for teachers handling children with special needs					
Large class sizes					
Inadequate teaching experience of preschool teachers					
Lack of information and lack of continuity of care					
Attitude of society towards children with special needs					
Child-related factors which in turn makes teachers to be fed up					
Environmental barriers within the school and classrooms					

**Others:** Please specify .....

## SECTION E: Measures to Enhance Fruitful Early Childhood Intervention Services

In your view, what measures can enhance fruitful early childhood intervention services for children with special needs in this school?

Please indicate the magnitude to which these statements can enhance improve early childhood intervention services in your school. Kindly tick [√] the most appropriate 1=No Impact (NI); 2=Low Impact (LI); 3=Moderate Impact (MI); 4=Adequate Impact (AI); and 5=A Very High Impact (AVHI)

### Measures to Enhance Fruitful Early Childhood Intervention Services

PREMISE	NI	LI	MI	AI	AVHI
The Ministry of Education should allocate adequate teaching and learning materials to all inclusive early childhood settings					
Teachers and parents need to co-construct a shared of reference to support collaboration					
Adequate training should be provided for teachers to support children with disabilities					
Teachers should be equivalent to the number of children with disabilities available in schools					
There should be adequate support from the school, families, and school counselor					
The school environment should be conducive to all children with special needs					
Teachers should use appropriate teaching strategies for teaching children with special needs					
There should be effective school partnerships with the community					
Professionals should always develop learning materials for all children with special needs					
Teachers should use appropriate teaching techniques and skills					

## APPENDIX B

### UNIVERSITY OF EDUCATION, WINNEBA

#### Interview Guide for Teachers

#### **Topic: Exploring Early Intervention Services for Children with Special Needs in Selected Early Childhood Centers in Abuakwa Township**

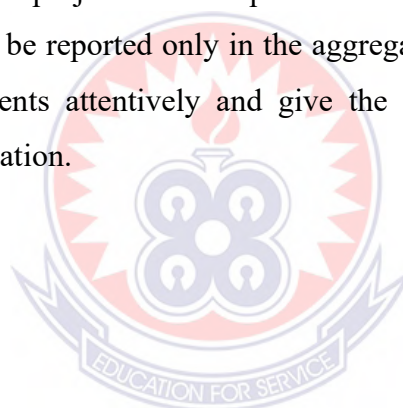
Dear respondent,

You are please being invited to participate in the study “**Exploring Early Intervention Services for Children with Special Needs in Selected Early Childhood Centers in Abuakwa Township**”

Your participation in this study is completely voluntary. There are no foreseeable risks associated with this project. Your responses will be strictly confidential and data from this research will be reported only in the aggregate. Please take time to respond to each of the statements attentively and give the response that best reflects the problem under investigation.

Sincerely yours

Gladys Kisseh



#### **SECTION A: Early Childhood Intervention Services**

In your opinion, what are the early childhood intervention services you, likewise your colleague teachers render to children with special needs in this school?

**Probe:** What early childhood intervention services do you render to children who are visually impaired?

**Probe:** In what ways do teachers intervene on behalf of children with hearing impairments in this school?

**Probe:** How are children with intellectual disabilities handled by teachers in this school?

**Probe:** In what ways do teachers contribute to intervene with a child requiring any form of special needs in this school?

**Probe:** Please comment on any form of intervention early childhood teachers offer to children with special needs outside the school.

Any other, please specify

### **SECTION B: Rationales behind Early Childhood Intervention Services**

In your view, what rationales are behind the early childhood intervention services you render to children with special needs in this school?

**Probe:** Please comment vividly on how the programme affects the child;

- Socially
- Emotionally
- Mentally
- Academically
- Linguistically
- Motor skills
- At home
- The family
- Teachers
- At school
- In future



Any other, please specify

### **SECTION C: Challenges Hindering Successful Early Childhood Intervention Services**

In your opinion, what are the challenges hindering successful early childhood intervention services for children with special needs in this school under the following sub-headings:

- School-related factors
- School environment
- Teacher-related factors
- Administrative-related factors
- Parent-related factors
- Pupil-related factors
- Government-related factors
- Community-related factors

Any other, please specify

### **SECTION E: Measures to Enhance Fruitful Early Childhood Intervention Services**

In your view, what can the following factors that hinders early intervention services for children with special needs be effectively addressed to enhance its success in your school?

- School-related factors
- School environment
- Teacher-related factors
- Administrative-related factors
- Parent-related factors
- Pupil-related factors
- Government-related factors
- Community-related factors

Any other, please specify

THANK YOU FOR YOUR PARTICIPATION

## APPENDIX C

UNIVERSITY OF EDUCATION, WINNEBA

### Interview Guide for Parents

#### **Topic: Exploring Early Intervention Services for Children with Special Needs in Selected Early Childhood Centers in Abuakwa Township**

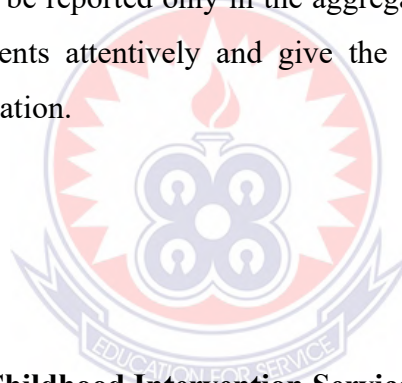
Dear respondent,

You are please being invited to participate in the study “**Exploring Early Intervention Services for Children with Special Needs in Selected Early Childhood Centers in Abuakwa Township**”

Your participation in this study is completely voluntary. There are no foreseeable risks associated with this project. Your responses will be strictly confidential and data from this research will be reported only in the aggregate. Please take time to respond to each of the statements attentively and give the response that best reflects the problem under investigation.

Sincerely yours

Gladys



#### **SECTION A: Early Childhood Intervention Services**

In your opinion, what are the early childhood intervention services you, likewise your colleague teachers render to children with special needs in this school?

**Probe:** What early childhood intervention services do you render to children who are visually impaired?

**Probe:** In what ways do teachers intervene on behalf of children with hearing impairments in this school?

**Probe:** How are children with intellectual disabilities handled by teachers in this school?

**Probe:** In what ways do teachers contribute to intervene with a child requiring any form of special needs in this school?

**Probe:** Please comment on any form of intervention early childhood teachers offer to children with special needs outside the school.

Any other, please specify

### **SECTION B: Rationales behind Early Childhood Intervention Services**

In your view, what rationales are behind the early childhood intervention services you render to children with special needs in this school?

- **Probe:** Please comment vividly on how the programme affects the child;
- Socially
- Emotionally
- Mentally
- Academically
- Linguistically
- Motor skills
- At home
- The family
- Teachers
- At school
- In future



Any other, please specify

### **SECTION C: Challenges Hindering Successful Early Childhood Intervention Services**

In your opinion, what are the challenges hindering successful early childhood intervention services for children with special needs in this school under the following sub-headings:

- School-related factors
- School environment
- Teacher-related factors
- Administrative-related factors
- Parent-related factors
- Pupil-related factors
- Government-related factors
- Community-related factors

Any other, please specify

### **SECTION E: Measures to Enhance Fruitful Early Childhood Intervention Services**

In your view, what can the following factors that hinders early intervention services for children with special needs be effectively addressed to enhance its success in your school?

- School-related factors
- School environment
- Teacher-related factors
- Administrative-related factors
- Parent-related factors
- Pupil-related factors
- Government-related factors
- Community-related factors

Any other, please specify

THANK YOU FOR YOUR PARTICIPATION