Autism in an Inclusive Class:

A case study of how teachers manage to include pupils with autism

Francis Aboagye

Department of Special Needs Education
Faculty of Educational Sciences

University of Oslo

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Declaration

I hereby declare that this thesis or any part of it has not been and will not be, submitted to another university for any other degree.

Signature .... Date..............................

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Abstract

The Government of Ghana in the recent years has put in place several policies, aimed at the increasing participation of children with disabilities in the mainstreams classrooms. One of such policies is the Education Strategic Plan, 2003 – 2015 which aims at inclusion of all children with non-severe disability in the mainstream classroom. Following this policy, some pilot inclusive schools were established and some children with special needs including those with autism found themselves in the mainstreams classrooms. One of such pilot schools is the Effiduase Methodist Primary School. This study was done at the Effiduase Methodist Primary 5B of Sekyere East District in the Ashanti Region of Ghana. The study goal was to find out how the teacher manages to include the pupil with autism. The study employed two research methods. The main research method was observation which was complemented by semi-structured and unstructured interviews. The observations were done in one classroom whiles four targeted respondents were interviewed.

The findings of this study indicate that although Government of Ghana through the Ministry of Education has made several significant statutory policies, inadequate teaching and learning materials and lack of resource persons are hampering the successful inclusion of the pupil with autism. However, there is a considerable commitment and dedication on the part of the parent(s) of the pupil with autism, teacher, and authorities of the school which have sustained the inclusion of the pupil with autism.

Abbreviations used in thesis

ADHD -   Attention deficits and hyperactivity disorder

AS -   Asperger's Syndrome

ASD -   Autism spectrum disorders

DSM-IV-TR) -   Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision

EFA -   Education for All

ESP -   Education Strategic Plan

FCUBE -   Free compulsory universal basic education

GES -   Ghana Education Service

IE -   Inclusive Education

MoE -   Ministry of Education

NCERI -   National Center on Educational Restructuring and Inclusion

PDD-   Pervasive developmental disorder

PDD-NOS -   Pervasive developmental disorder-not otherwise specified

SEN -   Special educational needs

SpEd -   Special Education Division

SpeEPF -   Special Education Needs Policy Framework

ToM -   Theory of mind

ZPD -   Zone of proximal development

Contents

1 Introduction

Prior to attending school, parents often learn about their children's diagnosis and use different strategies to help them cope with difficulties that the child may face throughout the day (Stacey W., & et al, 2007). However, when these children reach school age, they spend the majority of their day in a school environment. According to Stacey (2007), the change of setting can cause anxiety for most children and for a child with autism the school setting can often be shocking and disorienting. Stacey stated that pupils with autism do not easily and quickly absorb the rules of the classroom and the school and therefore need support throughout the day in order to function and learn at school.

According to Stacey (2007), as a result of these anxiety and difficulty in absorbing rules and regulations pupils with autism need special accommodations in their school day to make the environment comfortable and safe for them (Stacey W., & et al, 2007; Boer S. R., 2009).

The goal of the study is to investigate the strategies teachers and pupils[1] are using to stay successfully with pupils with autism in the class.

Within the European Union and internationally, legislations and policies have increased participation in mainstream education for pupils with autism (Woolfolk, Anita, Melcolm Hughes & Viviene Walkup,, 2013). Over the past five years, Ghana Government legislations and policies have also led to an increased focus on inclusive education which emphasizes the education of pupil with special needs in the regular classroom. For example, Education Act 2008, Act 778 of Parliament of the Republic of Ghana emphasizes on inclusion of mainstream schools with pupils with mild to moderate special needs and disabilities. Recently, Ghana Government again through the Ministry of Education launched another program, dubbed Inclusive Education Policy in 2015 which aimed to reorganize education delivery in the country to respond to diverse needs of all children in Ghana. These policies have led to increasing number of pupils with learning disabilities in the mainstreaming schools in Ghana (Ministry of Education, 2013).

In spite of this increasing number of pupils with disability in the mainstream classrooms, and the additional challenges it brings, ordinary mainstream teachers are being made accountable

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[1] Pupil(s)and child(ren) are used interchangeably in this paper.

for the learning and progress of these pupils (Stacey W., & et al, 2007). For example, according to Woolfolk (2013), in the UK, the special educational needs code of practice introduced in 2001 following the UK government's every child matters policy made teachers accountable for the learning and progress of all of their pupils. This issue of accountability for learning and progress is also found in Ghana. For instance, according to the 2008 education act of Ghana, 2006 persons with disability act of Ghana and the Ghana Educational Policy 2010 to 2020, schools and educational authorities in Ghana are required to develop their cultures, policies and practices towards achieving inclusive educational environment and to ensure that pupils with disabilities and other educational needs are not disadvantaged compared to their peers (Leslie Casely-Hayford & et al,, 2011).

The goal of my research will focus on pupils with autism in an inclusive classroom in the mainstream setting and how teachers manage to include them in the class.

1.1 The purpose of the study

The purpose of this case study is to investigate how teachers manage to include pupils with autism. The study explores the strategies teachers and pupils of Effiduase Methodist Primary 5B use to include their colleague pupil with autism in the class.

1.2 Research problem

It is said that many teachers are excited and happy to start a new school year. They also enjoy discovering the students' personalities and the challenge of teaching many different types of students. Teachers also usually feel some anxiety as they anticipate the process of gathering information about their new students to help the student learn in the most productive way possible (Stacey W., & et al, 2007).

The research problem is how teachers meet the needs and teach pupils with autism in an inclusive class.

1.3 The main question:

The main research question is: how do teachers manage to include pupil(s) with autism?

1.4 Research questions:

1. What strategies do the teachers use to include the pupil(s) with autism in the class?

2. What support(s) does the teacher receive?

3. How does the pupil with autism cope with the regular classroom activities?

4. How does the pupil with autism interact with other pupils?

5. How do the peers in the class manage to include their friend who has autism in the class?

1.5 Autism Spectrum Disorder

Autism spectrum disorders (ASD), according to British Columbia Ministry of Education, is a life-long development disability that prevents people from understanding what they see, hear, and otherwise sense that may result in severe problems with social relationships, communication and behavior (British Columbia, 2000). In the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (DSM-IV-TR) autism falls under pervasive developmental disorder (PDD) (Boer S. R., 2009). Kirk (2012) defines autism spectrum disorders (ASD) as a related disorder that, beside the child's social and communication problems, includes unusual behavioral manifestations such as repetitive motor movements (Samuel Kirk, et al,, 2012). Boer (2009), explains that ASD is a complex disability, unlike any other disability, results in a combination of many disabling conditions and that each person diagnosed with an autism spectrum disorder uniquely displays a combination of characteristics that no other person diagnosed with the same disability displays.

The prevalence of autism spectrum disorder is estimated by Centers for Disease Control (2009) in USA as 1.0 to 1.8 percent. According to Kirk (2012), Fombonne in 2003 reviewed the data in ten countries that estimated the prevalence of 4.8 in every 10000 children. This indicates that autism spectrum disorder has a global effect. Among the categories of disorders that are included in the autism spectrum disorders are pervasive developmental disorder-not otherwise specified (PDD-NOS), Asperger's syndrome, Rett's disorder, and childhood disintegrative disorder.

The PDD-NOS belongs to a group of disorders characterized by delay in the development of social and communication skills. According to Kirk (2012), children with PDD-NOS usually may not have all the full symptoms of autism and as a result of that, diagnosing mostly delay till late childhood. The Rett Syndrome is described by Kirk (2012) as progressive neurological disorder that, besides the social and communication difficulties, the child also displays a loss of muscle functions; hand flapping; and autistic behavior. Children affected by Rett Syndrome manifest the disabilities at the age between 6 to 18 months old (Kirk, S., et al,, 2012). The other category, the Asperger's Syndrome (AS) may also show stereotypical behavior such as hand flapping and some nonfunctional rituals such as sitting on a particular chair always. But what distinguishes children with AS, according to Kirk (2012), is the observable developmental imbalance. That is, the same child with AS can have average or superior intelligence and on the other hand can be far behind in social development as compared to their typical colleagues. The next group of ASD is the childhood disintegrated disorders. Children affected with childhood disintegrated disorders rather regress in their development. That is the child who once had speech but is no longer communicating (Kirk et al, 2012).

The causes of autism have not been cleared but many researchers believe that genetic disorder as well as the environment plays a major role in the causation of ASD (Kirk et al, 2012; Conn, 2014). Although it is a gene-based disorder, the condition manifests itself as social difficulty and affects how the child relate to other children, his communication and interactions. Kirk (2012) asserted that impairments in communication and social interaction are as results of deficits in the theory of mind, and also impairment in executive function (the information reception, thinking, and the expressions).

These unique characteristics: the theory of mind impairment; the impairment of the information process elements, have been discussed in detailed in chapter 3. Also, discussed in the same section and in the same chapter are the challenges that they present in the inclusion of children with ASD.

2 Background of the study

2.1 Introduction

In this chapter, you are going to read about the brief background of autism in Ghana and how they have been part of the mainstream education in Ghana. But before I go into detailed discussions of these issues, I will start the chapter with a brief profile of Ghana and narrow it to Sekyere East District of Ghana (the district that the study was conducted).

2.2 The Republic of Ghana

Ghana is located in West Africa, sharing borders with Cote d'Ivoire on the west, Togo on the east and Burkina Faso on the north. From the merger of the British colony of the Gold Coast and Togoland trust territory, Ghana became independent in 1957, becoming the first Sub-Saharan Africa to gain independence. Ghana is unitary state with ten administrative regions which is also sub-divided into smaller units called districts. There are 216 districts in Ghana. These districts are administered by the district assemblies.

The population of Ghana according to the 2010 population census is 24, 658,823. The census also indicates that 38.3 percent of Ghana's populations are children below 15 years. The 2010 Ghana's population census also shows that 737743 persons have some form of disability, representing 3.0% of Ghana's population. Also, going by this 2010 population census, about 71.2 percent are said to be Christians whiles about 17.6 and 5.2 percentages are Muslims and traditionalists respectively. These are the three major religions practice in Ghana. Christianity is predominantly practiced in the south, Islam in the north and followers of traditional African religions are spread throughout the country (Anthony J. A., 2009). In spite of the dominance of Christianity and Islamic religions, the belief in Ghanaian traditional religious superstitions still permeate in many Ghanaians (Anthony J. A., 2009). Anthony is of the view that most Ghanaians irrespective of religions and culture view disability as a punishment from the gods, or the ancestors, or divinities or witchcraft (Anthony J. H., 2010). These perceptions, according to Anthony (2009), are based on the belief in witchcraft, belief in river gods, beliefs in prophecies, or beliefs in ancestors, and so forth.

2.3 The Sekyere East District

Sekyere East District is one of the 30 districts in the Ashanti Region of Ghana. Effiduase is the district capital. It is also one of the beneficiary districts of Ghana Government's Inclusive Education pilot project. The district is located in the north-eastern part of the Ashanti Region with a total population of 62172, representing 1.3 percent of the population of the region (Ghana Statistical Service, 2014). According to the 2010 Population and Housing Census of Ghana, about 54% of the population in the district reside in the urban areas whiles 46% reside in the rural areas. The occupational distribution of the district according to Ghana Statistical Service (2014), also shows that 42.3 percent of the population are skilled farmers who are engaged in agriculture, forestry and fishery. Twenty-two percent of the population are engaged in services and sales whiles 14 percent engaged in craft and other related trade.

The district has 62 kindergartens, 62 primary schools and 34 junior high schools. The literacy rate is 84.2% among population who are 11 years and above whiles about 14% of the same age group population are non-literate (Ghana Statistical Service, 2014). Among the literates, 70.3 percent are literate in English and Ghanaian language, 16.8 percent in Ghanaian language only, 11.9 percent in English only. Of the population aged 3 years and above (56,569) in the district, 13.4 percent have never attended school, 44.0 percent are currently attending and 42.5 percent have attended in the past.

2.4 Autism in Ghana

About 3 percent of the total population in Ghana, according to the 2010 population census, have one form of disability or the other (Ghana Statistical Service, 2014). The proportion of the female population with disability is slightly higher (3.1%) than males (2.9%). The Ghana Statistical Service in 2006 survey also indicated that 16 percent of children between 2-9 years have at least one form of disability (Anthony J. H., 2010). Mentioning of names of some specific disabilities such as visual/sight, hearing, speech, and emotional/behavioral disabilities, and intellectual disability are all found in most statutory books and official documents such as: The Education Act 2008, Act 778 of Parliament of the Republic of Ghana; The Persons with Disability Act, 2006, Act 716 of Parliament of Ghana. Althouogh autism is labelled in the Special Education Needs Policy Framework (SpeEPF) of Ghana

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Education Service as mental handicap, the only time autism has been mentioned as specific disability is found in the Inclusive Education Policy, 2015 which was officially launched in 2016 by the Ministry of Education (Ghana, 2013). The SpeEPF also listed autistic behavior, ADHD, epileptic and emotional behavior disorders as children with intellectual disability.

Internationally, prevalence of autism varies and have ranged from the accepted and widely stated figure of 1.0 to 1.8 percent or 1in every 100 children according to the USA Centers for Disease Control (2009). A large gender difference in prevalence of the disorder also exists, with four to five times as many boys diagnosed with autism as girls (Kirk, S., et al,, 2012). As already stated, there is no reliable data of autism in Ghana, but what is evidence is that more and more children are been admitted into special schools and special unit schools every year with a related developmental disorder such as intellectual disabilities, emotional disorder, communication disorders, and mental handicaps (Ghana, 2013). According to Anthony (2009), there are certain core characteristics such as social and communication difficulties found together with limited interests and repetitive behavior patterns that still define autism disorder today. Anthony (2009) in his research into autism and inclusion in Ghana concluded that in spite of lack of data about autism in Ghana, these core characteristics that have been used to diagnose autism irrespective of one's culture also exist in Ghana.

Researchers and the medical community have not been able to give the exact causes of autism anywhere in the world (Anthony, J. A; Kirk, 2012). Across the world and culture, people have complex perceptions of the causes of autism which is not different from Ghanaian perception (Anthony J. A., 2009). Anthony (2009), in his research into autism and inclusion in Ghana, was of the view that Ghanaians have two dominant categories of explanations that they attribute to the causality of autism; some people appear to turn to biomedical explanations (result of immunization or effect of certain diseases that attacked the child) while others look to spiritual forces. Whiles those who believe in spiritual causality of autism and disabilities are the majority.

2.5 Access to education by pupil with special needs

At first, even still existing in some communities in Ghana, people with disability were basically seen as liability in their families and communities. Most of the children born with

disability were either killed or were over protected resulting in most of them living a life that was segregated and debased (Ocloo, 2003).

Formal education for people with special needs in Ghana started by philanthropists and missionaries and in 1962 all the special schools were taken over by the Ministry of Education. Special Education Division was established within the Ghana Education Service to handle issues and affairs of persons with special needs (Ocloo, 2003). The 1969 Education Ordinance introduced continuation schools for persons with special needs and students who could not do well at the Junior Secondary School to continue vocational training skills.

Currently, there are four main government bodies with responsibility for various aspects of educational services for children with disabilities in Ghana. These are the Ghana Education Service (GES), the implementing agency of which the Special Education Division (SpEd) is a part; the Ministry of Education (MoE); Department of Social Welfare (under the Ministry of Gender and Children) is responsible for individuals with disabilities once they have reached adulthood; Assessment Centres (Four assessment centres throughout Ghana report to GES). The Department of Social Welfare also runs rehabilitation centres (1 per region), is responsible for the registration of all children with disabilities into schools, acts as a referral point for parents and is responsible for policy specific to disability.

Government special educational needs (SEN) services take three main forms: segregated special schools; segregated units' school (contained on site with mainstream schools); and the inclusive education (Anthony J. A., 2009).

2.6 Development of inclusive education in Ghana

National Center on Educational Restructuring and Inclusion (NCERI) in US in 1995 defines inclusion as a provision of services to children with disabilities including those with severe impairments, in the neighborhood school, in age-appropriate general education classes with the necessary support services and supplementary aids, for the child and the teacher, for both to assure the child's success-academic, behavioral and social-and to prepare the child to participate as a full and contributing member of the society (Hall, 2002). According to Hall (2002), the NCERI's definition is centered on children with disability and also focuses on the child's academic, behavior and social participation in the school. Mittler (2000) explains that

inclusion requires a radical reform of the school in terms of curriculum, assessment, pedagogy and grouping of pupils. According to Jorum, (2015), inclusive education is placed upon full participation in a school for all by children with or without disabilities. Inclusion in education is an approach to reduce the barriers of educating children with special educational needs and learning difficulties. Jorum's definition, although placed inclusive education firmly on issues of fundamental human right and the child's educational rights which is also emphasized by Mittler (2000), her definition rather captures children without disability also benefiting from inclusion approach.

Ghana has ratified all international treaties on the rights of people with disabilities. And to show its commitment to these international ratifications, for instance treaties on right of persons with disabilities, Ghana has made domestic constitutional provisions for educational right for persons with disabilities (Anthony J. H., 2010). Based on these constitutional provisions a number of various educational reforms have been introduced in recent years with the sole aim of achieving inclusive education for children with disability (Minstry of Education, 2015). I will give a brief address of some of the statutory documents that have given directions on the path that the nation has taken towards achieving inclusive education for children with disability.

First, the 1992 Constitution of Ghana. Article 29 provides for the protection of people with disabilities from discrimination and abusive treatment (Articles, 25 and 37). This provision also mandates the legislature to enact appropriate laws in requirement for successful implementation of FCUBE (free compulsory universal basic education) (Parliament of the Republic of Ghana, 1992).

The second document is the National Disability Policy, June 2000 and the Persons with Disability Act, June 2006. These legislations secure the rights of people with disabilities with regards to education, transportation, community acceptance, housing and employment (Anthony J. A., 2009). They also fulfil Ghanaian constitutional requirements and incorporates suggestions from ratified human rights conferences (Parliament of the Republic of Ghana, 2006).

The third document is the Education Strategic Plan (ESP) 2003-2015 which reaffirms the Ghanaian government's commitment to Education for All (EFA) and dictates that all schools within Ghana become inclusive environments for children with disabilities by the year 2015

(Adusei, 2005). Based on these development, the government of Ghana established 29 pilot inclusive unit schools (segregated special unit schools) in the 2006/2007 academic year (Ghana, 2013). Currently, these inclusive unit schools have been extended to 46 districts across all the regions in Ghana (Ministry of Education, 2013).

The fourth important document that also reaffirms government of Ghana's directions in inclusion, is the Special Educational Needs Policy Framework (2005): based on key policy objectives indicated in the ESP, this framework addresses the challenges of marginalization, segregation and inequality which have constituted barriers to the education of children with disabilities and children with special educational needs (Anthony J. H., 2010).

The last document that I will give a brief description here is the recent document launched by Ministry of Education called Inclusive Education Policy, 2015. This document is perhaps the most direct document that gives specific strategies on inclusive education since the country committed itself to the UN Conventions on inclusion. Some elements of this Policy are highlighted below:

First, the MoE, 2013 document defines special educational needs to include children with disabilities and also those children without disability but who are failing in school due to variety of reasons that are known to be barriers to a child's optimal progress in learning and development" (Ghana, 2013). Examples of categories of children with special educational needs found in the document include: children with hearing impairment; children with visual impairment; children with attention deficits and hyperactivity disorder (ADHD); children with speech and communication disorder; children with autism; and children with emotional and behavior disorder. Children without disability but are failing in school due to some barriers are street children, nomadic children, fisher-folk's, and domestic child workers.

Also, the MoE, Ghana, 2015 document defines inclusive schools as schools that recognize and respond to the diverse needs of their students, accommodating different styles and rates of learning and ensuring quality education to all. The MoE Inclusive Education Policy document further stresses that all teacher training courses include training on inclusive education to enable teachers to deal with the diversity in their classroom and be equipped with relevant teaching and learning competencies and strategies to meet the needs of all learners. It also instruct school authorities to promote participation, friendship and interactions with the traditional leaders and opinion holders in the community to support and promote inclusive

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attitudes and behaviors in all aspects of community life for children with disability. From these few strategic objectives I have stated from MoE Inclusive Education Policy, 2013 it appears that the Government of Ghana has clear path in the implemention of inclusive education.

This chapter has demonstrated an attempt by the Government of Ghana to commit itself in an inclusive education system. The chapter has outlined various legislative instruments and ministerial provisions such as Disability Act, 2006; Education reform Act, 2008; and Inclusive Education Policy, 2015. Attempts have also been made to bring to light certain cultural aspects of Ghanaians such as spiritual beliefs which in my opinion have a fundamental and complex implications on the inclusion of an individual with autism into Ghanaian schools.

3 Literature Review

3.1 Introduction

This chapter deals with the theoretical framework of this study. It reviews the different related literatures to the main question of this thesis; how teachers manage to include pupils with autism in the class.

As indicated in the introduction, children with ASD bring into the classroom unique characteristics which include impairment in the social and communication skills (Attwood, 2005; Kirk, 2012; Hollier, Maybery & Whitehouse, 2014), sensory integration dysfunction (Kirk, 2013). In the opinion of many researchers such as Boar (2009) and Kirk (2012), there are fundamental mechanisms that are at the heart of these observable characteristics. The question that many people wonder are the underlying mechanisms that are at the heart of these impairments in the children with ASD.

This chapter first looked at the theories behind these characteristics; the Theory of Mind; and the elements of information processing of children with ASD. It also highlighted some of the unique challenges that children with ASD present to educators in their quest to include them in the regular classroom. This chapter again reviews theories of Bronfenbrenner and Vygotsky on environmental and social influences on development. The last section of the chapter reviews literatures that are related to the inclusion principles and principles that specifically relate to inclusion of pupils with ASD.

3.2 Theories that describe the fundamental problems of children with ASD

There are two main theories that are briefly discussed here in this section. First the theory of mind (ToM) and the second is the executive function. What then is theory mind? ToM is defined as the individual's ability to attribute independent mental states to her/himself and others and ability to predict and explain behavior of others (Attwood, 2005). According to Kirk (2014), ToM enables human beings to understand the thinking and feelings of other

people. Kirk (2012) states that lack of ToM is one of the main indicators of a fundamental developmental disability in children with ASD.

Attwood (2005) explains that the term ToM was used by developmental psychologist, Leslie and Morton, who believe that children are inborn with mechanism which makes it possible for them to think about and distinguish between the real world and thoughts. Children have the ability to recognize and understand thoughts, beliefs, and desires. The child's ability to recognize the intentions of other people, make sense of their behavior and to predict what they are going to do next are attributed to theory of mind (Attwood, 2005).

Some writers believe that the development of theory of mind (ToM) is on 4 levels of complexities (Attwood, 2005; Fischer, 1980) and there are signs that are visible in the child's expressions that show the level of development of ToM (Attwood, 2005). According to Attwood (2005) typical children develop pretend play between the ages of 10 to 18 months. It is at this age that children become capable of changing the function of an object and by the age of 2 years, typical children have developed the second stage of ToM. That is awareness of another person's visual perspectives and knowledge; what others can see. He believes that this development forms the basis of social games such as hide and seek. The third stage of ToM development is the child's ability to recognize the desire and emotions of other persons (Attwood, 2005). According to Attwood this stage of development can be attained at the age of 2 years by some typically developed children, and by the age of 4 years most typically developed children are able to identify and express the basic facial expression of happy, sad, angry and scared. And the final stage, typical children by the age 4, can understand whether another person is likely to express these feeling in every day life. These mental representations or metarepresentations, in theoretical terms, is the individual's ability to understand that other people have thoughts (Attwood, 2005).

The concept theory of mind was applied to children with autism by Frith and Baron-Cohen in the model of "Sally-Anne" task[2] (Attwood, 2005). According to Attwood children with ASD have always been found struggling with this metarepresentation (ToM), and those with severe autism may never acquire the first level. That is pretend play. He posited that some children with ASD hardly engage in pretend play because they lack the crucial mechanism to distinguish things in the real world and things in the mind. Baron-Cohen et al (1985) used the

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[2] This is axplained by Attwood (2005) as a psychological test, used in developmental psychology to measure the social cognitive ability of a person to attribute false beliefs to others.

concept of Sally-Anne to demonstrate that typical 4-year-old child would not have much problem with the Sally-Anne task. However, children with autism who's cognitive and linguistic abilities are matched on a typical 4-year-old children, have considerable difficulties with the Sally-Anne task (Attwood, 2005), indicating that children with autism lack the ability to read what others are thinking (Kirk, S., et al,, 2012). According to Kirk (2012), children with autism perform poorly on a variety of tasks that depend on understanding the feelings or thinking process of others as compared with even children with intellectual and developmental disabilities who also have considerable deficits in the theory of mind ability.

Another area of concern is the information processing elements of children with ASD. Kirk (2012), divides the various elements of information processing of individuals into three parts. These are the information receptions (input), the thinking (central processing), and expression (output). These elements of information processing are coordinated by the executive function (Kirk, S., et al,, 2012). According to Kirk (2012) the executive function determines what we attend to, when to attend to, how to attend to. It is the executive function that determines the mental processes that are used to solve problems, and which many ways we have of acting on information. In explaining the information receptions (input), Kirk (2012) says that most children with autism suffer from sensory integrated dyfunction. Condition that include hypersensitivity to noise, sensitivity to touch (tactile), visual sensitivity, and oral sensitivity (limited food repertoire, excessive chewing or mouthing of objects). He explains that children with ASD who are hypersensitivity to sound seems to have lost their ability to modulate sounds, as little sound can frighten them. Also, those who suffer sensitivity to touch will always shy away from being touched by others. Kirk (2012) asserted that such behaviors are always misinterpreted and compound the social difficulties that such children face.

The next information processing element that many children with ASD have difficulty is the central processing (thinking). Components involve in this thinking skills are difficulty in decision making, difficulty in problem solving, difficulty in executive function, reasoning and evaluation. Kirk (2014), believes this section is responsible for many children with ASD inability to make choice between activities of toys. However, many high functioning autism do not have problem with their memory and classification (Kirk, S., et al,, 2012). A lot of these high functioning ASD can collect an amazing body of information about specific content areas such as transportation, ocean-going, electronics, etc. (Attwood, 2005).

The next element of information process that children with ASD display a lot of difficulties is the information output (Kirk, S., et al,, 2012). Some critical skills in this responsive element are the speaking, writing, dancing, running. Also, many children with ASD have difficulties in fine motor skills and motor imitation (Boer S. R., 2009). Kirk (2014) asserted that most of the children with autism though may meet motor milestone in time, the quality of their movement sometimes can appear stiff and clumsy.

As already stated at the beginning of this chapter, this literature is not focusing on diagnoses of autism but to bring into light the challenges that these characteristics present to educators as we seek to their successful inclusion in regular classroom.

In the next sections, I am going to highlight some of these challenges that impaired theory of mind, and or impaired information process elements have in the abilities and capabilities of children with ASD in inclusive classroom.

3.3 The effects of impaired theory of mind and executive function

From the discussion of ToM, it is very clear that impaired ToM may create social, communication, and imaginative difficulties for children with ASD (Baron-Cohen S., Jolliffe T., 1997), and for that matter the child's ability to learn (Conn Carmel, 2014). Writers like Vygotsky believes that learning for individual is essentially through social interaction (Vygotsky, 1978). Attwood (2005) says that impairment of ToM affects the child's ability to read the social and emotional messages in the eye and make literal interpretation. Impaired ToM may also affect the child with ASD's ability to being aware of hurting other children's feelings. Other effects of impaired ToM are the likelihood of being considered disrespectful and rude. Attwood posited that children with ASD might not be able to respond to adult or another child's subtle cues that might results to break social rules which may draw a wrong interpretation from those who might not be aware that the child's inability to respond to such subtle cues is due to the impairment of ToM. Other effects of impaired ToM are lack of eye contact, difficulty in sharing joint attention, and unusual play behavior (Conn, 2014)[3]. Lack of social interaction like play has always been the key for describing children with autism

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[3] see also Scott J., Clark C., Brady M. P., 2000.

(Conn Carmel, 2014). Their unusual play behavior such as mostly looking away from friends, less likely to share or engaging the interest of others when they are playing affect their participation in play with their peers (Conn Carmel, 2014). Boer (2009), asserted that the unusual play behavior reflects their social skill deficit. She explains that some may perseverate on certain objects and actions during isolated play, parallel play next to their peers, or initiate play interaction but only on their own terms (Boer S. R., 2009).

3.4 Cognitive abilities and theory of mind deficit

Cognitive abilities and deficits of children with ASD range from severe impairment to gifted abilities. According to DSM-IV, children with Asperger's Syndrome show no significant delay in cognitive development. According to Boer (2009), children who are labeled autistic often display severe to average mental deficiencies, those with Asperger's syndrome often display average to gifted mental capacities whiles PDD-NOS mental capabilities often ranges from mild to moderate abilities, overlapping on one end with autism and other with Asperger's syndrome. Children with ASD all struggle with these three cognitive characteristics; metarepresentation, abstract reasoning and point attention. Children with AS perform on item recall, definition of words, information, problem solving and coding (Boer S. R., 2009). Kirk (2012) asserted that children with Asperger's Syndrome can have preoccupation with certain subject almost to the exclusion of other subjects and they are noted and that they can be expert in science such as computer science. From these account of researchers, it is evidence clear that impairment of theory of mind of child with ASD might necessarily reflect in the cognitive abilities of the child. Although not all writers are convinced with this assertion. According to Bolick (2005), this much talk about of highly intelligent autistic individuals have not been researched proved and that it is only touted in media circulation (Bolik Teresa, 2005).

3.5 Theories that support influence of environment on the child's learning

Bronfenbrenner's (1979) conceptualization of the "ecology of human development" provides a useful theoretical framework for research on the implementation of inclusion (Guralnick, 1982; Peck, 1993). Bronfenbrenner's theory about ecology of human development says that

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development reflects the influence of several environmental systems. Therefore, to understand human development, it is important that one needs to consider the entire ecological system in which the growth occurs. He said that there are layers of context that an individual interacts with. These layers of context he called ecological system. In particular, this system distinguishes environmental subsystems that are progressive distant from the child but nevertheless help support and guide human growth. The ecological framework proposed by Bronfenbrenner describes four distinct environmental levels (micro-, meso-, exo-, and macro) portrayed as concentric circles that may impact the development and experiences of an individual. Each of the layer contains roles, norms and rules that shape psychological development of the child (Bronfenbrenner, 1979). He stated that "ecological environment is conceived topologically as a nested arrangement of concentric structures, each contained within the next" (Bronfenbrenner, 1979, p 22). Each of the system is briefly discussed here.

Firstly, the growing individual in the ecological framework. In the context of this study it refers to the child with ASD in general education classrooms. Characteristics pertinent to the individual include a diagnosis of ASD and the quality of the child's social, cognitive, and communication skills. Additionally, the individual level includes the feelings and perceptions of the child regarding his or her social experiences such as feelings of loneliness, motivation and characterizations of the dimensions of his or her friendships.

The microsystem, according to Bronfenbrenner, is closest to the child. This system, he explains, is the immediate surroundings in which the child is directly involved. These surroundings directly affect the child, and, in turn, may be affected by the child. It includes the family, peers, the school and the neighborhood. These settings are places where children can engage in face-to-face interaction (Bronfenbrenner, 1979). The factors of activity, role, and interpersonal relations are the main builders or the elements of this system. For this study, the immediate environment of the microsystem refers to the general education classroom in which the child with ASD is educated and the individuals present in this environment including peers, the general education teacher, the paraeducation, the special education teachers, and any other professional who may be offering special services such as speech and language therapy. Each individual professional within the inclusive education environment possesses his or her own set of past experiences, knowledge, and beliefs from which the child draws upon as active being within that environment. The focus will also be how the inclusion

of pupil with ASD influences the behavior of the teacher, peers, the school administration (the head of the school is the administrator of the school).

Mesosystem is the circle of the ecological system that refers to the relations of different structures of the child's microsystem. For example, family members' beliefs about inclusion and the family's relationship with the school. (Odom, S. L., et al, 1996). Similarly, how the pupil with ASD relate to typical peers in the classroom setting may affect relationships outside class (e.g., invitations to birthday parties).

Exosystem includes one or more settings that do not involve the person as an active participant but events that occur and happen there has its influence on the child's development. For example, the service delivery agency responsible for an inclusion program provides an example of an exosystem setting. How the agency is organized, for instance, can affect program implementation (Odom, S. L., et al, 1996). Other examples of factors operating at the exosystem level include the interactions of professionals responsible for inclusion programs, formal and informal policies of school systems and social policy that connects organizational layers (e.g., state or regional, district). Any of these exosystem factors can affect the experiences of individual children, and child with ASD in the inclusive education programs (Odom, S. L., et al, 1996).

Macrosystem is the outer circle of the ecological mode. It refers to beliefs, traditions or ideology of cultures or sub-cultures. Laws, economic condition are also parts of it, affecting inclusive education program as a whole, and the environments of all other layers (Odom, S. L., et al, 1996).

3.6 The social constructivist theory, Vygotsky

Social interaction plays fundamental role in the process of cognitive development. Vygotsky stated that individual efforts are not separate from the activities they take and also the institutions they are part (Rogof, 2003). This became a basis for an implementation of individual into its context and thus basis to its holistic approach. Central to Vygotsky's theory is also the idea that when children take part in activities through guidance of more skilled person this participation helps children in internalization of tools of thinking and to develop their skills of problem solving that they already practiced in social context. According to

Vygotsky, cited in Rogof (2003), cognitive processes occur twice in individual's life, once on the social plane and then through internalization it moves and forms individual plane (Rogof, 2003).

Vygotsky, in explaining the relationship between learning and development and the characteristic of this relation, was of the view that these two processes are interconnected and they immediately begin together with the birth of a child. Moreover, he believes in absolutely different power of school learning. On this basis, Vygotsky built a concept that he found very important to the development of children, especially, children with special needs - this is the zone of proximal development (ZPD) (Johnsen, 2013). Vygotsky described the zone of proximal development in this way, "it is the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers (Vygotsky, 1978: P. 86). He discusses that the actual developmental level that is current and already reachable abilities of a child. Apart from this actual developmental level, we also have the potential ability of a child, what could be reached not independently but with assistance from more capable others. The distance between this already established and matured mental functions and with the level that is in process of creation and could be potentially reached was what Vygotsky called the zone of proximal development.

Vygotsky also argues that child's development should include the child's needs. He stated many theories disregard the child's needs and rather describe child's development as his intellectual functions. But rather a characteristic of development advance from one stage to another. He stated that "if we ignore the child's needs, and the incentives which are effective in getting him to act, we will never be able to understand his advance from one developmental stage to the next, because every advance is connected with a marked change in motives, inclinations, and incentives" (Vygotsky 1078, p. 92).

Thus, social constructivist theory of Vygotsky considers the interaction with others as extremely important. Social context and interaction in learning is discussed as basic to child's development. During these interactions, more capable others mediate child's environment by providing the tools for solving problems and by focusing attention on relevant information around (Vygotsky, 1978). Thus, it is the dialogue with more competent others that introduce the new way of thinking and patterns of thought to children. Eventually, thinking and communication processes of children become internalized after repeated exposure to, skills

become incorporated into child's mental system. This is how cooperative activity influences learning. In other words, functions are first formed in the form of relations among children and then become mental function for the individual.

3.7 Cognitive modifiability and mediate learning experience

Reuven Feuerstein as cited by Javakhishvili (2012) posited the flexible view of human organism and intelligence and therefore the effect of mediation. He asserted learning can be expanded and enriched through proper interaction. Feuerstein believes that every person is potential to change if provided with the opportunities to engage in the right kind of interaction (Javakhishvili, 2012). This is opposition to the view held by other scholars that intelligence is static. Mediated Learning Experience refers to the way in which stimuli experienced in the environment are transformed by a mediating agent (Feuerstein, Raphael, Louis, & Yaacov, 2006). Mediating agent can be the parent, the teacher, or other intentioned person in the life of the learner. According to Feuerstein, et al the mediating agent, selects, and organizes the stimuli for the learner, according to a clear intention and goals for that learner's enhanced and effective functioning. The mediator selects stimuli that are most appropriate to his/her intentions, and then frames, filters, and schedules them; their appearance or disappearance is arranged to structure the learner's exposure according to clearly identified and explicit goals.

Javakhihvili (2012) in explaining Feuerstein's concept of modifiability in the context of structural cognitive modifiability theory stated that the mediated learning is the change in thinking and development of efficient thinking skills needed to become independent and autonomous learner, to adapt to requirements of society.

Feuerstein belongs to experts who hold the position that human development is socio-cultural in its nature and not only biological. Therefore, the modification of cognitive and motivational functions by interaction was observed in his practice. According to the theory, there are two basic ways when an individual is modified trough this interaction with his environment. The first is the direct exposure to stimuli and the second is the process of mediated learning. It takes place when another person serves as a mediator between the learner and the environment (Javakhishvili, 2012).

The next sections of this chapter review literature on inclusion of pupil with ASD in the general education classroom, and models of other countries.

3.8 Defining roles and responsibilities of inclusive education

In some developed countries, there are legal documents that establish and mandate specific team and defined their roles and responsibilities in the inclusion of children with disabilities (Boer S. R., 2009). For example, in the USA, the child's parents or guardians, the principal, the special educator, and the general educator are all mandated to be part of IEP team (Boer S. R., 2009). According to Boer other members of the IEP team may be the para-educator, the occupational therapist, the school psychologist, and so on. In the case of Ghana, the Ministry of Education's document on inclusive education mentions only the parent(s) or the guardian as a mandatory member (Ministry of Education, Ghana, 2013). The members of IEP team prior to their set up (by law not by choice), may not know each other well. This situation often creates problems or difficulties more so because each member of the team comes into the team with different experiences, viewpoints, beliefs and expertise. Furthermore, the concept of inclusive education for pupil with disabilities, and for that matter pupil with ASD, is quite controversial and this can add up to the difficulties that IEP team often encounters in their work (Boer S. R., 2009).

In order to avoid these problems and difficulties, the team should first and foremost establish what each IEP team member's roles and responsibilities will be throughout the process. According to Boer (2009), taking the time to discuss, collaborate on, and establish clearly defined roles and responsibilities for each member of the team will greatly increase the success and effectiveness of the inclusion of pupil with ASD in the general education classroom. It will also help in avoiding unnecessary delays that can inhibit the success of the program and the pupil's progress because each member of the team has clear expectations for each other that ensure efficient follow-through on tasks. Above all defining roles and responsibilities help in maintaining open channels of communication and collaboration to continue without frustration and conflict.

3.8.1 The pupil

According to Johnsen, the pupil or the learner is the ultimate user of education and therefore her/his experience, knowledge, skills, attitude, worries and fears, capacity, the mastery, possibilities, interests and mentoring needs. All these have to be seen in the education he or she is part of. The teacher or the special needs educator knowing the pupil and planning his or her education that takes consideration of these characteristics is in accordance with child-centered educational traditions.

The question is, how do we know the pupil and for that matter every pupil in the class? Johnsen states that in order to know the pupil there are "three key informants and cooperation partners concerning the pupil in relation to learning and school" (Johnsen, 2013). These are the learner, the parents, and the teacher. Starting from the learner (pupil or child), Johnsen explains that learning needs are assessed through regular communication, through formal and informal assessment of the learner's work and strategies. Johnsen recommended that in order to assess the learner; the educator needs to encourage the pupil to participate in a dialogue about their education; listening carefully to pupil's voice, what their interest, priorities and worries are; and understand what learning strategies they manage and prefer.

The next essential partner in assessing pupil's needs and interest is the parent. Parents are the essential partners in assessing the pupil's needs and interests. According to Stacey, parents of children with autism are aware of the conditions of the children before they start school and believe that it is appropriate that they are made integral partners in assessing children with autism. In the context of US, parents are among the people who are mandated to be part of the Individual Education Plan team (Boer S. R., 2009) In the case of Ghana, parents are obliged to supply vital information of the child to professionals (Ghana, 2013). Boer further explains that many times it is through the insistence of parents that the child with ASD is included in the general education classroom and on other times it is also with reservation that the parents allow their child to be included in the general education classroom. So, what kind of information do we need from the parents in our quest in knowing the child? Johnsen (2013) gives these three suggestions; that in assessing pupil's needs and interest, in making long term goals and making re-evaluation of individual curricula. The teacher is the third key source of the child learning potentials and possible special needs in a class setting and holds the formal responsibility for all pupils in the classroom (Johnsen, 2013). Because the teacher holds

important roles and responsibilities, Johnsen (2013) states that they are self-evident participants in any team that is tasked to develop towards the inclusion of pupil with special needs and for this context pupil with ASD. The teacher's role and responsibilities will be discussed in detail under the Inclusive Education Program Model by Boer (2009).

3.8.2 Educational assessment

As discussed earlier in chapter one, each child diagnosed with autism spectrum disorders is unique and displays a combination of characteristics that no other person diagnosed with the same disability displays (Boer S. R., 2009). Educational assessment and evaluation, consists of considerations and judgements about teaching and learning environments, processes and results, and their contextual relations (Johnsen, 2013). In the context of special needs education, according to Johnsen, the educators and professionals need to assess and evaluate the specific barriers, possibilities and adaptations concerning teaching and learning environments, processes and results, and their contextual relations (Johnsen, 2013). According to Boer, one of the most difficult things for parents and educators of a child with ASD has to do with the determination of the appropriate educational placement that will best address the child's specific needs. He explains that in addition to the unique disorders many of the children with ASD have average to above average cognitive abilities yet demonstrate great delays and challenges in language, play, and social and behavioral skills.

According to Johnsen the educational assessment, that traditionally focus on measuring learning achievements using norm referenced marking scales, often results in putting the pupil with special needs at the bottom of the scale. Johnsen contended that this kind of assessment may result in stigmatization and degrade the pupil with special needs from the "good company" of the class and may result in serious consequences for his or her educational and personal self-image. Assessment of these nature has also been used for segregation purposes – placing children in special classes and units, in special schools, and even health institutions (Johnsen, 2013). Contrary, Johnsen (2013) suggests that educational assessment of pupil with special needs and in this context pupil with ASD should be extensive (it goes beyond assessing pupil's learning product to include learning processes), flexible (its form and content is supposed to be adapted to individual pupil's needs), and dynamic (is intended to take place in dialogue between educators, pupil and parents). She explains that educational assessment should reflect the pupil's level of mastery and nearest possibilities to learn and

develop. The nearest possibilities to learn is explained by Vygotsky as what the pupil can do with little help from more capable person (Vygotsky, 1978).

In spite of her criticism of traditional educational assessment, Johnsen does not discount the use of traditional educational assessment. According to her, traditional educational assessment may be applied in broader intentions such as reviewing the existing curriculum as a whole and also shed light on specific needs of pupils for support. She offered examples of methods and approaches in individual assessment such as interview and conversations, dialogue with the pupils, checklist, portfolios, logbook or diary, pupil's works, and so on. Aspects of the curriculum alongside with people within the learning setting and beyond also need to be assessed in other to provide specific adaptation that will meet individual learning needs (Johnsen, 2013). Johnsen argues that such assessment will provide the background information that will give access to contextual and ecological connections to the individual curriculum adaptation.

I end this section with some questions from Johnsen (2013) that according to her may serve as "door openers" for more accurate and detailed curriculum assessment. Among them are: Is there a need for changing priorities within some of the frame factors? How does the content suit the pupil's zone of proximal development, interests and need for support? Does the individual curriculum lack any aspects of importance to the individual learning process? Are the individual curriculum sufficiently related to make inclusion possible?

3.8.3 Content

Johnsen (2013), describes educational content as substance and values that are supposed to form the pupil into an educated person and also explains what a certain education is about. According to Wolfgang Klafki (1999), as cited in Johnsen (2013), the choice for substance and values of education should make reference to the particular child who is to be educated, and with historical situation also in mind. In other words, Børndal Liederg (1978) also cited in Johnsen (2013), put socio-cultural and pupil-centred approach among the criteria for choosing educational content.

Content of education is determined at both the national level and the local level (Johnsen, 2013). Johnsen explains that political choices are taken at macro level. These are made up of policy documents, national curricula and other statutes. At the local level, Johnsen explains

that, educators are professionally responsible to bridge the gap between official curriculum and concrete learning in the individual classroom. So how do professional bridge the gap between the macro level and the micro level, so to say? Johnsen explains that one of the strategies professionals use to bridge the gap is to plan for different alternative learning and teaching activities.

Bjørndal and Lieberg (1978), as cited in Johnsen (2013), state some criteria for learning activities. These are consistency with the whole teaching program, adequacy compared to goals, variety and multiplicity, adaptive to individual pupils and group and, relevance and meaning.

Booth (2000), as cited in Johnsen (2013), also suggests the following questions that can be used to monitor choice of educational content in a classroom. In other words, the teaching activities (micro level). These questions are: Do lessons extend the learning of all pupils? Do lessons build on the diversity of the pupils? Do lessons reflect differences in the pupil's knowledge? Is the way opened up for different subjects to be learnt in different ways?

Johnsen herself also suggested concrete considerations that educators can take in their daily plan for educational content. According to Johnsen, such considerations may include, choice of phenomena, resource persons, learning materials, equipment and learning environment. Johnsen concluded by advising educators to also take into consideration social aims and educational needs of individual pupils or the class when selecting curriculum content.

3.8.4 Context

Context is the culture of the school with its opportunities and barriers for learning (Johnsen, 2013). Johnsen describes the educational context as the frame factors that include the content, methods and organisation, the educational intentions, assessment, and the teacher. She explains that the school as an institution depends upon and operate within a framework consisting of several frame factors. Such frame factors according to Johnsen include legislations, economic and human resources, and a number of physical, social and cultural aspects. She explains that frame factors set limit and give direction and can also open up for new directions and possibilities.

Mentions can be made of some specific examples of frame factors because of their peculiar influences. One of such frame factors is educational legislation and policy. Johnsen explains that educational legislation and policy in most countries describe the educational rights of individuals, and the general aims of education of the country. Documents in many cases, relate to international agreed principles such as the principles of education for all and the inclusive education principles. Johnsen argues that the national educational acts and curricula may sometime tend to contradict each other with different set of aims and goals. She therefore advises that in making individual and the class curricula, national legislation and policies need to be interpreted in the process of adapting them into concrete educational situations.

The next frame factor that needs attention is the professional quality. Johnsen describe the availability of qualified teachers, special educators as well as the quality and perspective of their education as the most important frame factors that can serve as barrier or possibilities. She argues that the process from principle to reality of an inclusive education needs strong professional advocacy as well as solid craftsmanship, flexibility and creativity in the art of educating. General education teachers, special needs educators have a great professional responsibility to provide education for all children without or with special needs Johnsen stated.

Other frame factors that can also have great impact on successful inclusion and inclusion of pupil with ASD which is the focus of this paper, is the physical frame factors. These include; the school buildings and its surroundings and neighbourhood; the classrooms ventilations and lighting; the tables and chairs sizes, arrangement, and adjustability.

Another important physical frame factors that need mentioning here is the technological equipment in the classroom. According to Johnsen (2013), new technology developed during the last decades has radically increased the teacher's possibilities to create flexibly and suitably adapted individual curricula in the class setting.

The last but not the least frame factors that is of importance to this thesis is the range of social and cultural aspects of the community. Johnsen calls it the contextual aspects and stated, that is in line with what Bronfenbrenner (1979) considered as the influences of the local community with its social and economic structures, its occupational possibilities and natural environment, on learning and schooling. Some of the social and culture factors that influence the school and learning possibilities of the pupils and pupil with disability attitude. Johnsen

explains that attitude of a particular community influences how information is interpreted and choices are made consciously and unconsciously. Attitude of a community can also lead to prejudices towards certain group of individual (for example pupils with ASD) while they are for instance seen as dangerous, shameful or curse and that school should give "bright pupils" high priority. Is the same attitude that may make pupil with ASD especially, be viewed as natural states of human diversity (Johnsen, 2013).

Inclusion, Johnsen (2013), believes that contextual influences in educational possibilities or creation of barriers for individual pupils, for that matter pupil with ASD, is as important as the influences of the micro level frame factors. Therefore, it is important that the individual education team in assessing educational possibilities and barriers for individual pupils, develops an awareness about, analyse and take informed decisions concerning how contextual factors relate to other frame factors in their influences in inclusion educational principle, for this context, inclusion of pupil with ASD (Johnsen, 2013).

The next topics will review the literature that deal specifically with inclusion of pupil with ASD in general education classroom. It will review some of the schemes used specifically in USA and some teaching strategies used along with those schemes.

3.8.5 Administrative leadership

Process of implementation of inclusive education program involves various levels of leadership. Boer (2012) explains that the general tone and attitude in favor or against the inclusion of student with ASD are set at the district level by directors of education through policies and allocate funding. But the implementation of inclusive education program is the unique role of the principal within the school. The principal directly determines school policy and allocation of fund. In Ghana for instance major policy of inclusion and establishment of inclusive schools are taken by the Ministry of Education. However, funding is a shared responsibility among stake holders which include the district education directorate through the district assembly common fund among others (Ghana, 2013). Other significant roles the principal plays include; removing barriers that arise during the implementation process; fostering positive attitudes among staff and students as the key to the sustainability of the program during the inevitable (such as conflict with parents, lack of fund and resources, disagreement among school personnel); and protection of resources. Boers (2009) again

argues that because the principal is distantly involved in the day-to-day inclusion practices, it is crucial for them to seek input from influential and knowledgeable school personnel such as the special education teacher. Consequently, successful implementation of inclusive education program cannot be achieved without the appropriate support and leadership of the principal.

3.8.6 Team members

Until recently, special education and the general education system have functioned as independent systems in most countries (Boer, 2009; Ocloo, 2004). Special educators have assumed responsibility for pupil with disabilities while in special setting, and the general educators have also assumed responsibilities for pupil without disabilities. Boer asks that when pupil with disability (such as pupil with ASD) is included in the general education setting, who takes responsibilities for this pupil. According to Boer (2009) some schools assume that the general education teacher is the primary teacher for all of the pupils. Whiles some also assume that since the special educator determines the following;

One, whether and when the needs of pupil with ASD can appropriately be met in the general education setting.

Two, which education programs and teachers will best meet the pupil's needs.

Three, how inclusion may be accomplished most effectively. In this case, the special educator maintains all of the responsibility for the pupil with disability no matter what classroom they are in.

Boer argues that the latter assumption combined with other impudent of inclusion policies and activities have weakened the many general educator's motivation for inclusion.

One of the major component of an effective inclusion of pupil with ASD is a shared responsibility by the general and the special educators through support and close working relationship between these two educators (Boer S. R., 2009). The general educator must accept that pupil with ASD who is included in their classroom are their responsibility and the special educators must also accept that they continue to hold responsibility for their pupil's education even when their pupil is in the general education classroom (Boer S. R., 2009)[4].

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[4] See also, Cross, A., Traub, E., Hutter-Pishgahi, L., & Shelton, G., 2004

Collaboration and cooperation involves parents, general and special educators, the pupil, related service providers, and the administrators in the planning, implementation, and evaluation of instruction and the progress of the general education classroom (Boer, 2009; Johnsen, 2013).

Coordination and communication among the IEP team members and among school personnel are important step towards effective inclusion of pupil with disability, and in this context, pupil with ASD. Coordination in the context of inclusion of ASD pupil, according to Boer, requires clear definition of roles and responsibilities for all the IEP team members. It also requires clear understanding by each person of their own as well as other members' duties and responsibilities. Coordination helps team members to have appropriate expectations of one another and of themselves. It also helps members to make appropriate implementation decisions, share expertise, discuss problems and strategies, decide jointly on intervention and assessment methods, and also follow through tasks and responsibilities in a timely fashion.

The basis for developing the collaborative relationship that can achieve coordination is communication (Boer, 2009; Johnsen, 2012). It is the basis for involving all-inclusive stakeholders. Effective communication ensures that all involved persons in the inclusion of pupils with ASD are working towards the same goals and followed the established procedures. The general and the special educators must be train as partners and collaborators in the cooperative ventures of teaching pupils with disabilities alongside their typical peers within the general education classroom (Boer, 2009; Johnsen, 2013).

3.8.7 Training and support for students and personnel

Training on inclusive education and ASD as well as the provision of supports within the general education classroom when including a student with ASD is crucial to the success of an inclusive education program, Boer explains. Boer singles out this component as the most important one that hold the success or other wise of the inclusive education program of pupil with ASD. Similarly, investigations by Buell and colleague as cited in Boer (2009), found that lack of in-service training is what most teachers believe inhibit the successful inclusion. Boer asserted that most general educators do not have necessary background training that would enable them; to understand the characteristics of ASD; the way to communicate with persons

with limited verbal skills; and the academic procedures that have been proven effective for these pupils.

According to Boer (2009), among four critical support needs found in a survey that promote successful inclusion are sufficient training, availability of a team of professionals, and assistance within the classroom.

Boer recommended that training should also be extended to paraeducators since they assist the general educator various task that include; helping pupils to practice previously taught academic and social skills; documenting pupil's performance and progress; assisting teachers with daily planning, materials development, and curriculum modification.

Boer listed some areas he believes the paraeducators should receive training. These are; characteristics of children with ASD; communication skills; behavior management techniques; instructional methods, and; how to arrange the educational environment.

According to Boer (2009), once training is giving to the general education teacher and paraeducator, for a pupil with ASD to benefit fully from the enhance skills, the average class size should be reduced. Boer explains that pupil with ASD learn best when there is high levels interactions of teacher-pupil and classroom structure. Again, behavior excesses and deficits are most easily controlled when the pupil has access to adequate teacher support Boer asserted.

3.8.8 Allocation of resources and space

Special education resources should be protected and continually provided for pupil with ASD who is being included in the general education classroom. Boer explains that the special educator, who is designated as case manager for a particular pupil with ASD, must have time to do the following; observe the pupil in the class; meet with the general education teacher and the paraeducator; develop materials the pupil with ASD may need; and assist in making accommodations to the curriculum.

Boer suggested that the ideal situation could be that the special educator at a given school site is designated as inclusive facilitator and his entire caseload should consist of pupils with ASD who are being included in the general education classrooms. Boer further suggested that this special educator should have staff of paraeducators who would support the pupil with ASD in

the various general education classrooms. For them to operate effectively, Boer suggested that the ideal pupil-to-teacher ratio for such inclusive program is one special educator, (who has two to three paraeducators) to no more than eight pupils with ASD.

According to Boer (2009) there should be a resource room (also called inclusive classroom) where the special educator or the inclusive facilitator, and the paraeducators would have their desks. Boer explains that this space or room would serve as a meeting room where the special educator can meet with the general educator and the parent(s) to develop materials and accommodation for the curriculum. The space can also be used as a place for the pupil with ASD to have lessons on specific skill and more importantly take break or can be taken when their behavior becomes disruptive for the general education classroom.

3.8.9 Accommodation and instructional methods

Another component that contribute greatly on the success of the inclusion of the pupil with ASD in the general education environment is the use of appropriate instructional methods (Boer S. R., 2009). According to Boer, there are proven teaching techniques, intervention methods, and curriculum and environmental accommodations that can be used to enhance the ability of a pupil with ASD to receive and learn from instructions provided in the general education classroom. Boer explains that these are pupils who are first and foremost needed to "learn how to learn" in order to function appropriately in the general education classroom. Therefore, the teacher and the para-educator need to understand the types of teaching methods that have been used successfully in the special education classroom to enable the pupil to learn and progress more easily.

In the inclusion of pupil with ASD, the pupil must have IEP plan provided by a multidisciplinary team. In the context of USA, the Least Restricted Environment Services and Placement Determination form (which contains basically the strength and the needs of the child with disability) are completed before the child is placed in the general education classroom (Boer S. R., 2009). This greatly assist the general education and special education teacher in knowing the child's specific needs and appropriate modification needed in the general education classroom (Boer S. R., 2009). Boer asserted that, because there is no way to know exactly how many and what type of accommodations and modifications the pupil may need initially, it is important for IEP team to keep detailed records of; the pupil's

performances in the new environment, changes and modification that were made for his or her benefit, and how successful these changes were for the pupil, must all be detailed recorded.

3.8.10 Recurrent evaluation of inclusion procedures and child progress

Another key component of successful inclusion of pupil with ASD is assessment (Boer, 2009; Johnsen, 2013). According to Boer, after the IEP team has developed the pupil's goals and objectives and taken decision on which goals and objectives can be met in the general education classroom, the team must develop strategies that will help in continual assessment of the pupil's progress. Continual evaluation of the inclusive education program is an important component that ensures that the program continues to be successful and continues to meet the needs of pupil with ASD in the general education classroom.

According to Boer the progress of ASD pupil in the general education classroom does not depend on the performances of the pupil alone but also on the performances of the general education teacher, the para-education teacher, and the structure of the inclusive education program that the school and the IEP team set up (Boer S. R., 2009). The special educator must observe the general education classroom more often and specifically observes the general education teacher, the ASD pupil, the para-educator, and typical pupils to obtain the baseline for performances and behaviors and to provide feedback for the needed changes. Unfortunately, most often the school or IEP team may put great amount of effort, resources, and time into starting an inclusive education program, but then forget this important component that ensures that the program continues to be successful and continues to meet the needs of pupil with ASD (Boer S. R., 2009).

3.8.11 Facilitating pupils' education within general education

Once the pupil with ASD is included in the general education classroom, it is important for the special education teacher, the general education teacher and the paraeducator to use teaching technique and strategies that will effectively facilitate the pupil's education, both academic and social (Boer S. R., 2009). According to Boer, one of the most important aspects of an inclusive education program for pupil with ASD is for them to "learn to learn" (Boer, 2009: p.155). What does he mean by "learn to learn"? Boer explains that there are classroom

behavior skills every child needs to have in order to function appropriately and to learn within the general classroom, therefore pupil with ASD needs to gain these skill in order to remain in the general education classroom and to benefit academically and socially. For example, Boer explains that attention skills (one of the five important classroom behavior skills according to Boer's classification) is one sets of skills used to attend to pertinent stimuli in the environment, particularly the teacher. Boer argues that it is one set of skills every child with ASD struggle with, and therefore needs to be oriented to acquire this all important skills for him or her to function appropriately and benefit academically and socially in the general classroom setting. Other classroom behavior skills that are needed for the pupil to remain, and to benefit academically and socially from the general classroom environment are participation skills, social interaction and communication skills, following classroom routine skills, and play skills (Boer S. R., 2009). And Boer (2009), argues that pupil with ASD needs to be trained with these skills before they can function appropriately in the general education classroom.

Earlier discussions of this paper and the above discussion indicate the need for accommodations in the curriculum and teaching strategies in order to help the pupil with ASD to benefit in the general education classroom. Boer argues that it can be difficult to adjust teaching strategies for use specifically with a pupil who still requires special education services but is receiving his education within the general education classroom. In order to help the teacher to deal with these difficulties, it is important that the special educator provide ongoing support for the pupil with ASD in the general education classroom and the teacher, and also the paraeducator to assist the teacher in the daily process of educating the pupil with ASD. The kinds of supports that Boer suggests will be briefly discussed later.

3.8.12   Facilitating pupil independence

According to Boer (2009), the most important goal for a pupil with ASD is to become an independent learner and participate within the general education classroom. As stated somewhere in this chapter that one of the most difficult task for educators is assisting the pupil with ASD in *"learning to learn"*. This means that helping the pupil to have the skills to attend to the pertinent stimuli in his or her environment, and storing those skills appropriately when required to provide specific response (Boer S. R., 2009).

Boer (2009) gives these three recommendations that may help pupil with ASD to *"learn to learn"*. These are:

That as soon as the pupil with ASD is included in the general education, strategies should slowly be implemented to promote the pupil's independent learning and participation.

The goal of independent learning needs to be constantly conveyed to the pupil through the actions and instructions of the educators.

The fading of assistance should be subtle and slow, allowing the pupil to gain the confidence needed to be motivated to complete the task or activity independently.

In fading assistance, Boer (2009) again suggests strategies that educators can use to fade extra assistance whiles promoting the pupil's independence. These include:

One, that the general education teacher speaks or provide instructions to the pupil with ASD in the general education classroom the same manner as he/she speaks with all other pupils in the class. This means the teacher should hold the pupil with ASD to the same standards of appropriate behavior as the rest of the pupils are held and avoid telling the paraeducator what to tell the pupil with ASD what he or she needs to do or not to do. According to Boer, once the teacher provides instructions to the pupils the paraeducator can step in and assist the pupil with ASD in following the instructions.

Two, avoiding prompt dependency on the part of the pupil. According to Boer (2009), prompt dependency may occur if there is consistently close proximity between the pupil and an instructor (often the paraeducator) during all activities throughout the day. Boer (2009), suggests that the instructor should avoid standing or sitting next to the pupil for prolonged period, whiles also taken into consideration that pupils with ASD react to the proximity of instructors when they are in the general education classroom.

Three, allow pupil with ASD in the general education classroom to choose what he can do within an activity or task. According to Boer (2009), many pupils with ASD were in early intervention programs for many years before being included within the general education classroom. Activities in such interventions programs give them (pupil with special needs) the needed freedom to control learning environment because of this, pupil with ASD can display noncompliance behavior for not being allowed to have control over their environment or

action in the general education classroom. Boer (2009) suggests that to increase independent participation and motivation skills of pupil with ASD, his (pupil with ASD) inclusion in a general education classroom should offer him with choices of activities, play and reinforcers which he might have missed in the early intervention programs.

The last but not the least point of promoting independent learning skills is helping pupil with ASD to gain an understanding of turn taking. According to Boer, one of the difficulties many pupil with ASD experience is anxieties about winning a game, being first to do something, being first in line, and so on, which can cause the pupil to be disruptive and aggressive within the general education classroom if he does not get his way. Boer pointed out that educators often cater to these apparent needs without realizing that they are increasing the strength of these inappropriate behaviors. That is allowing him to have new toys, always first, start a task over because of a simple mistake he has made, and so on. Boer argues that if pupil with ASD is not allowed to make mistakes and learn how to remedy those mistakes, to be gracious when they do not win a game and learn how to improve his skills to do better next time or to wait for others and be the second or the third, or last person, etc, he will not be able to function successfully within a typical environment in school, at home or in the community. Boer suggested that one way educators can assist the pupil with ASD to overcome these difficulties is to make game out of making mistakes and doing something that looks sloppy; make jokes and laugh about it and say, "that's ok, I can fix it, I can do better next time, and so on".

4 Methodology

4.1 Introduction

This chapter describes and discusses the approach and methodology that was used for the preparation of research, collecting data, analysis and interpretation of findings. Why they were chosen and how they were used. It also discusses why the qualitative approach was preferred and why observation and interview methods were more appropriate for collecting data. How it fits to answer the research questions. In this chapter, you will also find the following methodological aspects: sampling procedure of the study, ethical issues and validity of the study.

4.2 Research approach

There are different ways of classifying research project. The most common ones are the differentiation between the qualitative and the quantitative on both extremes and the mixed method in between these two extremes which incorporate elements of both qualitative and the quantitative (W.Creswell, 2014). The selection of research approach depends on the purpose of the research. The purpose of this research is to do an in-depth study of inclusion of pupils with autism in the regular classroom, the challenges associated and the strategies teachers use to accommodate them in the classroom and school setting. This purpose of this study, in my opinion, is deeply imbedded in the social and humanistic context and I believe that using qualitative case study design is appropriate for the study. I also chose case study design because the focus of this study is the phenomenon of inclusion of pupil with autism in a mainstream classroom as emphasized by Bryman (2012) that with case study, the case is the object of interest and the researcher aims to provide an in-depth explanation of the case. According to Bryman (2012), a case study research is concern with the complexity and particular nature of the case in question, and that is what the study intends doing; to investigate the complexity that autistic pupil present in an inclusive classroom.

4.3 Method of data collection

The methods that I used to collect my data are observation and interview, and using more than one method in the data collection is not uncommon in qualitative research (Bryman, 2012). There are some other reasons that also influence the choices made. The first of such reasons for using two methods is that one method will complement the other and therefore will limit the possibility of methodological weakness. In case the interview method served as additional source of data for verifying the information acquired in the observations method (Gall et al, 2007). Secondly, it also increases the trustworthiness of the data (Bryman, 2012). I first start with observations.

4.3.1 Observation

Observation is defined as the systematic description of events, behaviors and artifacts in the social setting chosen for study (Johnson, 2014). Observation is the selection and recording of behaviors of people in their environment. According to Bryman (2012) observation is useful for generating in-depth descriptions of organizations or events, for obtaining information that is otherwise inaccessible, and for conducting research when other methods are inadequate. In the views of Frankel (2012), certain kinds of research questions are best answered by observing how people act or how things look. Frankel argues that researchers could interview teachers about how their students behave during class discussions of sensitive issues, but a more accurate indication of their activities could be obtained by actually observing such discussions while they take place. It was in this belief that I chose observation as the main data collection method. Using observation was appropriate because it provided me with firsthand experience, truthful reporting, and quotations of actual conversations (Bryman, 2012).

The degree of observer participation can vary considerably and that the researcher can take four different roles. These are participant observation, non-participant observation, naturistic observation and simulations. There are some forms of roles which range on a continuum from complete participation to complete observer (Frankel, J. R., Wallen, E. N., Hyan, H. H., 2012).

Nonparticipant observations with the role of observer-as-participant was used in this study. My role as observer during the observation varied. According to Bryman (2012), the role of observer depends on the level of involvement and participation of researchers in observed setting and on the level of interactions with observed individuals (Bryman, 2012). Because the other data collection method that was designed to complement the main method is interview and it would have been impossible to conduct interview with conceal identity. And to get access to the school and the classroom may not be possible with a conceal identity and may also be unethical. Since the observation was at the school and the classroom which is the natural setting of pupils and teachers, hence the application of naturalistic observation in this study.

Naturalistic observation involves observing individuals in their natural settings. The researcher does not control or manipulate variables or to control the activities of individuals, but simply observe and records what happens as things naturally occur (Frankel, J. R., Wallen, E. N., Hyan, H. H., 2012).

Other form of observations is participant observation, and non-participant observation,

In participant observation studies, the researchers participate in the setting of situation they are observing and can take the role of complete participation in a group or participation-as-observer in a group. In a complete participation in a group, the researcher identity is not known to any of the individuals being observed. The researcher interacts with the members of the group as naturally as possible and for all intend and purposes as one of them. In order to do that the researcher must arrange to serve for a year as an actual teacher. If the researcher chooses the role of participant-as-observer, she/he participate fully in the activities of the group being study, but also makes it known to them that she/he is doing research (Frankel, J. R., Wallen, E. N., Hyan, H. H., 2012). Participant observer can be overt or covert. According to Frankel, observer is overt in that she/he is easily identified and the subjects know that they are being observed. On the other hand, if the researcher disguises his or her identity and act as just like any of the other participant, she/he is said to be covert observer (Frankel, J. R., Wallen, E. N., Hyan, H. H., 2012). Frankel (2012) argues that covert observation can produce more valid observation of what really happens, however, it is often criticize on ethical grounds. That is observing people without their knowledge and their permission.

In a non-participant observation study, the researcher does not participate in the activity being observed but rather sit on the side line and watch. In that the researcher does not directly involved in the situation she or he is observing (Frankel, J. R., Wallen, E. N., Hyan, H. H., 2012). Frankel further argues that if the researcher chooses the role of observer-as-participant, she/he identifies herself or himself as a researcher but do not pretend of actually being a member of the group she/he is observing. According to Bryman (2012), interaction with the group members occurs, but often tends to be through interviews, along with documents, if they are the main data of the research. In a non-participant observation, if the researcher plays the role of complete observer she/he observes the activities of a group without in any way participating in those activities. The subject of his/her observation may or may not be realized they are being observed.

Frankel explains that researchers in their quest to investigate certain variables, create a situation and ask subjects to act out or simulate certain role. They tell subjects what to do but not how to do it. Two main types of role-playing, according to Frankel (2012), use by educational researchers: individual role-playing and team role-playing. In an individual role-play, a person is asked to role-play how he thinks a particular individual might act in a given situation whereas in the group role-playing, a group of individuals is asked to act out a particular situation whiles the researcher observing and recording what goes on (Frankel, J. R., Wallen, E. N., Hyan, H. H., 2012).

4.3.2 Interview

The second method that I used to collect my data is interview. The purposes of using interview are as a complementing support to the observation and also get the root in-depth of interest in understanding the lived experiences of teachers, parents, and the headmistress who stay with autistic pupil in these naturalistic settings (Seidman, 2006).

Interviewing is described as careful asking of relevant questions. Qualitative interview is a way of finding out what others feel and think about their worlds (Rubin & Rubin, 1995). According to Frankel (2012), it is an important way for a researcher to check the accuracy of or to verify or refute the impressions she/he has gained through observation. Fetterman, as cited in Frankel (2012), describes interview as the most important data collection technique a

qualitative researcher possesses. Qualitative interview can be unstructured or semi-structured. Both types were used in the study. I will start first with the semi-structured.

Semi-structured interview. In the semi-structured interview, the researcher has the interview guide. The guide can be in the form of a list of questions or specific topics the researcher intends to cover (Bryman, 2012). In my case, for instance, I developed my interview guide or a list of questions intended to ask participants although the questions were not followed during the interviews as outlined on the interview guide, and occasionally I asked participants questions that were not included in the guide. I also on one occasion had to give to participant an interview guide in advance upon request. In such situation, I acknowledged that, the interview became a bit rudiment and was difficult for me to prompt during the interview with the participant.

The unstructured interview also sometimes referred to as informal interview. Unstructured interview tends to resemble casual conversations because it is very similar in characteristics of conversation (Bryman, 2012), and tend to pursue the interest of both researcher and the respondent (Frankel, J. R., Wallen, E. N., Hyan, H. H., 2012). According to Frankel et al (2012), informal interviews do not involve any specific type or sequence of questions or any particular form of questioning and that the primary intention is to find out what people think and how the views of one individual is compared with those of another. This interview according to Frankel is probably the most difficult of all the interviews to conduct because of issues of ethics. For example, when is a question too personal to pursue.

From the brief explanations given above, my intention of using informal or unstructured interview on class teacher and the parent (mother) was primarily because the interviews were very much conversational and they were not scheduled. The conversations were mostly centered on their lived experiences of having a child with autism. Questions of how they feel, what they think, what they know about their child or the pupil with autism in the same classroom, and above all how they manage to live with the pupil/child.

Interviews were tape recorded. The reasons for the tape recording are that; it allows more thorough examination of what people say; it permits repeated examinations of the interviewees' answers; and above all, qualitative researcher interest is not just in what people say but also in the way that they say it (Bryman, 2012). According to Allen (2012), if this aspect is to be fully woven in the data analysis, it is necessary for a complete account of the

series of exchanges in an interview to be recorded and made available. Despite the advantages that tape recording gives, there are shortcomings in tape recordings. In tape recording the sights, the smells, the impressions, and the extra remarks said before and after the interviews are missed. To capture these all important data, my field notes included these mentioned data during and after interviews. These served as a supplement to the interviews (Bogdan, Robert. C., Sary Knopp Biklen,, 1992).

4.4 Study site

The selection of the study site was partly based on purposive sampling criteria and partly based on convenience sampling. Purposive sampling approach used in the selection of study site was based on criterion sampling on specific, pre-decided characteristics (Bryman, 2012). The main criteria here was that schools that have been selected as inclusive schools by Ghana Education Services and Ministry of Education, Ghana was selected. In this case about 49 basic schools (Ministry of Education, 2013) were qualified. Other factor that was used to select Effiduase Methodist Primary School was matter of convenience that include proximity and financial factors.

4.5 Entry into the field

Proceedings to enter the field were started immediately after the approval of the proposal. Several correspondences between the researcher and the host institutions took place through email. After the methodological considerations were accepted by my supervisor. My first contact of the school was to ask permission to do the research in the school. Introductory letter which the researcher secured from the Department of Special Needs Education, University of Oslo, and application to conduct the research were presented to the headmistress of the school. The headmistress told me to call back after three days whiles she seeks advice from her superiors at the district education directorate. Permission to conduct the research was granted after the three days. I was led to the teacher in primary 5B classroom who has a pupil with ASD in his class. Although there was another option in primary 6A, I was advised that they were preparing to write the district promotion exams. That is the transition exams to the Junior High School.

After permission to conduct the study was granted, recruitment for interview objects began immediately. Face to face contacts were made with the persons intended to be interviewed. The permission letter, the introductory letter from my university, and informed consent were given to the interview objects. Only one object rejected interview, some reluctantly signed the informed consent with some further conditions that they will grant the interview only in secured location.

4.6 Participants for observation

The participants of the observation were categorised into three broad headings. These were: One, **the pupil with ASD in the inclusive classroom**. The focus of this category was to have basic knowledge of the characteristics of the pupil that serve as profile since according to Boer, characteristics of autism is unique to every individual child. The reason was, having this profile could guide me to understanding the teacher's method and the intervention being provided to the pupil.

The second category was **general education classroom**. Some of the detailed activities are, teacher's interaction with the pupil(s), especially pupil with autism, interaction between pupils and pupil with autism, and the class lessons. Other category is the inclusive education environment of the school. This category focuses on the non-academic activities such as lunch time, physical education time, and playground. Other physical structures such as washrooms, entrances, resource rooms, desk and seating arrangement and so on were also subjects for observation. In short, my observation formats were focused on the classroom activities and the school environments. I grouped the observation into these categories in order to give me focus on my data collection and help me to organize the data as the collection proceeded (Bogdan, Robert. C., Sary Knopp Biklen,, 1992).

4.7 Sampling methods for interview

The interview objects were selected based on fixed purposive sampling strategy. Fixed purposive strategy because the objects were established at the outset of the research. Based on my research questions and also the theoretical review of the study, I had already listed the following objects as my interview objects; teachers who have a pupil with autism in his/her class and is willing to participate; parent(s) with a child with autism and also willing to

participate; the head of the school, the special needs teacher, the special needs education coordinator of the district education directorate, and the education director of the district education directorate, and who are willing to participate.

4.8 Analysis of the data

Notes were taken during observation. I categories these notes into the following headings; the environment of the school; the general education classroom; and the pupil with ASD in inclusive classroom. All interviews were tape recorded and transcribed immediately after the interview took place. Again, notes were taken alongside the recording. Both the notes from the observations and interviews, and the transcripts from the interview have been read and reread several times during the data analysis. The data analysis started during the fieldwork, as is the case for many qualitative research studies. I employed this style of analysis so that the initial analysis would help me with the direction of the data collection and help me to know at the point that data collection is enough and manageable (Bogdan, Robert. C., Sary Knopp Biklen,, 1992).

4.9 Ethical considerations

Ethics is one of the basis of educational research. Educational research deals with a wide range of characteristics; individuals with different background. Every researcher must have to consider carefully issues that might harm participants, invade the privacy of the participants, deceive participants, and above all consent of participants involve in the study must be sought. These are basic principles of ethical concern in qualitative research. In other to ensure that these basic principles were met, the following measures were taken;

Participation in the project was fully voluntary, they also opt out in the middle of the observation or interview without explanation.

Informed consents were obtained from participants and authorities concerned, and I assured the participants in the study their right to anonymity. In other to guarantee this right, participants' names were not used in any of the data analysis. This is done to ensure the protection of vulnerability and misunderstanding of participants and interviewer (Frankel, J. R., Wallen, E. N., Hyan, H. H., 2012).

4.10 Reliability and validity in qualitative research

There are several concepts related to the quality of qualitative researches and different strategies suggested for ensuring it. Qualitative researchers usually select the criteria themselves in accordance to their topic, methods, etc. (Gall et al., 2007). Validity and reliability are the two central components that affect the value of a study. They will be discussed here in relation to the study.

Firstly, validity as one of the strengths of qualitative research checks the accuracy of the findings by applying certain procedures (Creswell, 2014). The key concept of validity is defined as validity threat, a way researcher might be wrong. Therefore, it gives strategies to identify and exclude those threats (Maxwell, 2005).

As for those threats, researcher bias and reactivity are named as main risks to the study. The first is about the preconceptions and subjectivity that can lead to invalid findings. How a particular researcher's background, values and expectations affect the process and conclusion of the study. Thus, it is critical to explain and reflect on your possible biases and to discuss the strategies you will use to deal with it (Maxwell, 2005). There are several strategies that help researcher to ensure a high level of research quality and rigor.

In my research, I tried to follow the suggested strategies like using thick and rich description. This was reached through immediate transcription of the interviewed data, and making detailed notes of observation and recordings of reflections after each interview and observation. This made possible to have a full picture of what was going on (Gall et al., 2007) and avoiding unconscious selection of memorized information.

The questions were also clarified if informants asked for it or if they seemed not to understand it well. This also helped to avoid subjective interpretation of responses.

Direct quotes of participants and description of concrete observed events were also given during the data presentation and analysis.

Reactivity is an important issue in the research. It is considered that interviewer and the interview situation always influences what the informant says (Maxwell, 2005). While being aware of this circumstance I tried to make, my informants feel free by reminding them about

confidentiality and right of withdrawal. I was also careful to avoid leading questions during the interview.

In addition, the use of multiple sources of data was also aimed to increase the quality of the research and ensure validity (Creswell, 2014). Especially when considering the small number of participants.

External validity that deals with the generalizability of findings might be a problem for a qualitative research because of a less representative character of the sample (Gall et al., 2007). Additional shortage to it is, as mentioned before, the small sample of this study. However, as description of teacher's knowledge and practice, the data still showed an interesting variety in results and interesting links such as; spiritual beliefs attributed to autism and its influence on inclusion; biomedics explanation of autism. These perspectives could be taken into consideration in further examination of this topic.

Also, reliability deals with assuring that if other investigator conducted the same study and followed the same procedures he would arrive at the same conclusions. Its goal is to reduce biases in a study (Yin, 2009). In the first part of this chapter I tried to give a description of the research process - the steps I made and description of participants, data collection procedures, etc., to make the reconstruction of this study as much as possible.

4.11 Limitations of the study

The results gained through the study are limited by several circumstances and factors that could affect them. Firstly, the research as a qualitative study lacks the possibility to generalize findings (Bryman, 2012) and therefore the results of this research cannot be generalized to be the situation prevailing in all inclusive classrooms in Ghana. Generalization of this research findings is also hindered by the number of participants involved since there were only four respondents and one class chosen for this study.

Another limitation pertains to the issue of translating interview questions as well as interview responses. In this research, three of the interviews were originally recorded in the local Ghanaian language and later translated into English. There is the possibility of the researcher losing data in the course of the translation. Also, the instruments were originally created in

English Language and later translated into Ghanaian local language which subjected it to the risk of losing data during the course of translation (Bryman, 2012).

Further, my presence in the class was likely to have some effect on the behaviors of the teacher and the pupils and the likely consequences on data.

Finally, the data is not rich enough to enable in-deph analysis of the prevailing situation. This is because of the short period within which the observations and the interviews were done. Unfortunately for me, my observations in the class 5B met the time when the school was preparing for the terminal examinations. Because of this I had to cut short my stay in the class. The declined of the district director of education at the leventh hour also affected the richness of the data. Since I could not get any substitude who could offer explanation from the government perspectives.

5 Data Discussion

5.1 Introduction

This chapter presents and discusses the observations and interviews data. The data is divided into five main headings plus additional headings which may help advance the richness of this study. These six main headings are curved from the research questions. There are sub-headings develop from these five main questions. The five main headings are: the pupil with autism (pseudo name: Kwame); the strategies the teacher is using to include the pupil with autism in the class; the support(s) the teacher is receiving; how the pupil with autism is coping with the regular classroom activities; how the other pupils manage to include the pupil with autism in the class.

5.2 The pupil with ASD (Kwame)

Researchers have described pupils with ASD as having difficulties in three areas, social interaction, communication, and flexible and imaginative thinking (Pittman, 2007). As stated in chapter 1 in this study, beside the general scope of these: social; communication and difficulty in imaginative thinking, each child with ASD has specific unique needs that need to be met for his or her successful inclusion (Kirk, 2012; Boer, 2009). In the context of Kwame, according to Johnsen, the educators and professionals need to assess and evaluate the specific barriers, possibilities and adaptations concerning teaching and learning environments, processes and results, and their contextual relations (Johnsen, 2013). In line with Johnsen's assertion and also to appreciate the teacher's strategies and interventions, the study briefly looks at Kwame's unique needs, his abilities and challenges. In this study, my interviews and observations with the mother and the teachers indicated that Kwame's unique needs include; speech, writing, reading, emotional and social adjustment needs. These were revealed by the interview I had with the teacher;

> "His main problem has been his quick- temper. If anybody worries him or takes something that belongs to him he gets angry and easily gets into fight, as for that he fights with them".

In one of the observations at their canteen also I saw him and one other boy in a fracas. Kwame's quick-temper also seem to be confirmed by the mother when she said this during my interview with her;

> "He doesn't understand certain things. I don't know if he does that because of me. I guess he doesn't show that to different people. When I tell him, Kwame, don't do this or that he says I shout at him and he gets angry and he wouldn't mind me again".

Although this statement of the mother gives some indications to what the teacher describes as Kwame's quick-tempered, perhaps, what is escaping them is the demonstration of peculiar characteristic of sensory processing disorder which Kirk describe as one of the major problems for children with ASD (Kirk, 2012).

It was not all deficits situations, Kwame also displays a lot of abilities. During the period of observations, Kwame was seen many times playing football with his friends. This indicates that he has less difficulty in gross motor skills. He also shown no signs of difficulties in adaptive behavior skills as I observed him changed his own clothing after school. His mother also confirmed his abilities in these adaptive behaviors. During my interview with her, she expressed her satisfactions with how he (Kwame) is able to do almost everything by himself when she stated that;

> "When you asked him what's your name he could tell you. He started also taken his bath himself and could also dress".

Another critical observation which is worthy of mention is his ability in Mathematics. As the mother stated

> "Although he started learning to write his name when he was there (the special unit) sometimes too he tells me he scores 60% or 45% in class exercises. So I could see that there has been tremendous improvement".

His ability to score 60% as indicated in the interview with the mother also shows his abilities in certain areas of his executive function.

5.3 Strategies the teacher uses to include pupil with autism

Having given a brief description of Kwame's difficulties and his abilities in section 5.1, this section discusses the strategies being used by the teacher to meet these challenges for his successful inclusion in the BS 5 (basic school 5) at Effiduase Methodist Primary School.

I would like to start this section with a brief description of the BS 5 classroom situation which I believe goes a long way to influence teaching and learning especially, pupil with ASD. The classroom is about 30 metre square. The furniture is dual-desk arranged in 5 columns with 7 rows. This sitting arrangement seems permanent. The dual-desk are heavy and difficult to move around. The class teacher has his desk at the back of the classroom. Behind the teacher's desk is the cupboard that the pupils keep their books, the class register, brooms, teaching and learning materials, and also the teacher's cane. There are also some few cardboards hanging on the walls. There is a big blackboard permanently fixed in front of the classroom wall. The classroom is well ventilated with 2 doors and 3 windows on opposite side of the classroom wall.

Although, the furniture arrangement in the class were in fixed permanent positions I observed Kwame changing sitting positions several times during the day. When I asked the teacher why Kwame was changing sitting positions, this is what he told me;

> *"I want him to sit with all of them in turns so that they help him with their little contributions that's why he's been doing that".*

He explained further that those pupils are good at different subjects and he wanted them to help Kwame. Moreover, they also have a good relationship with him and therefore pairing him (Kwame) with them would not create any problem between Kwame and those pupils. One of the difficulties Kwame has and has been describe in section 5.1 is his quick-temper. The teacher describes him as someone who easily gets angry and gets into fight with the least provocation. So, in my interview with the teacher, I asked him the strategy he (the teacher) uses to address Kwame's so called quick-tempered. This is how the teacher describes his strategy.

"anytime I see that, I quickly call and calm him down. Even if he's the one at fault, I calm him down first then talk to the other party too. I must say that children also know him very well so they try to avoid anything that will bring trouble".

This same dialogue seems to be adapted by the school authorities in dealing with conflict between the regular school and the special unit. In my interview with the headmistress of the school, she also recounted using the same approach when some of the regular children were teasing some of the special children that resulted in conflicts. This is how she narrated the situation;

"I called the girl (special needs) to the office here calm her down. We've also advised the normal children that if they were in their situation would they be happy if people tease them, if they wouldn't like to be teased then they should treat them the way they would like to be treated. So since that incidence that I told you about, about that girl, there hasn't been any major issue again concerning teasing or fight between the normal children and the special children".

Another ingenious strategy that the teacher uses to elicit Kwame's participation in class lessons is to lure him through the participations of other pupils Kwame sees as his competitors in the class. I have already stated above in this chapter that one of the observation that I made about Kwame is his shyness. During my stay with them in the class I realised how he always tried as much as possible to avoid contact with me. The teacher also said similar behaviour of Kwame in the interview I had with him.

"Any time I ask him direct question or want him to contribute in the class he either refuses to talk or responses that he cannot do it".

So, when I asked the teacher how he managed to involve him in class lessons, this is how the teacher described his tricks;

"...what I have realised is that there are some children whom he always want to challenge so any time they make contribution in class he would also want to contribute. So when I want to involve him I rather call one of those children first and you realise that Kwame would also want to make contribution too. Remember

I said earlier that there are other children I believe also have special needs. These are the children he always want to challenge".

Looking at the various approaches the teacher employs in handling Kwame, it is obvious he relied very much on other pupils in the class as strategy to include him (Kwame). In the view of Vygotsky, peers are very important tool in teaching children, especially pupil with special needs. This application of using Kwame's peers to help him is in line with Vygotsky's social constructivist theory. First, the teacher is making use of more capable peers to improve his social interactions skills and learning skills. Vygotsky explains that when children take part in activities through guidance of more skilled person this participation helps children in the internalization of tools of thinking and to develop their skills of problem solving. Again, peer teaching is also in the context of Vygotsky's ZPD of which he ascribes child's potential learning and development as an interaction between a more capable peer or an adult. So the teacher using Kwame's peers to help him has the potential of improving his social skills and learning skills.

Again, it is also important to acknowledge the dialogue approach with which the teacher has adopted in dealing with conflicts or potential conflicts between Kwame and other pupils in the class. Vygotsky posited that it is the dialogue with a more competent adult that introduces a new way of thinking among children.

5.4 Support to the teacher

Having discussed the various strategies the teacher employs to manage Kwame's inclusion in BS 5, this section looks at the support(s) that is available for the teacher to use for the successful inclusion of Kwame. Through my observations and the various interviews with stakeholders, I categories this section into four sub-sections of categories of supports such as support from the school, the mother (parent), the community, and the international organizations. These categorizations were done either through direct answers to the questions to the respondents or deduced from the interview notes or observations.

5.4.1 Support from the school

The school plays an enormous role for the successful inclusion of Kwame. In my interview with the headmistress she recounted the advice that the authorities of the school give to the teachers on how to treat pupils with special needs in the class. When I asked her about the kind of help the school gives to Kwame's teacher, this is the response that she gave;

> *"Once we bring the child to the regular class, we consider him as a regular child, we don't treat him as special child again. So we only advise the teacher not to be too hard on him and also to be careful with his utterances. And also to give special attention since their IQ may not be like the regular children. We don't leave them to their faith. He has to help him develop interest in the learning".*

Through the collaboration of the school, the special unit teachers serve as resource teachers for the teachers in the regular schools. During my interview with the head of the special unit, when I asked her direct question on the help that they give to the teachers, this is the response she gave me;

> *"Ok, yes, I can say that three children in the private school, their teachers call us time to time on phone to get information as to how to go about with their teaching and learning. And we have two again included into the mainstream here. But in case there's a problem, they quickly run to us or if they have any difficulty concerning the children that we've included, they call us to come in. Sometime, personally, I go there. I sit and then talk with the teacher".*

There was another unique way that the special unit is being used as resource centre to support the special needs pupils in the inclusive classrooms. When I visited the special unit, I was shown small group of pupils made up of about three children of various age categories being prepared for inclusion in the following academic year. Two of the pupils were doing numerals whiles one was learning picture readings. Later in my interview with the head of the special unit, she explained that as part of the preparation towards inclusion they also train them basic classroom behaviours. In the same interview, she also talked about the assistance that the unit gives to those already included like Kwame;

> *"... also when they give assignment to the child, normally during break time, the child comes to the unit and we assist him on how to go about it".*

She explained further that the school adopted this approach because of inadequacy of trained special needs educators;

> *"Ideally, there should have been a special teacher assigned to these children or specially train teacher attached to these schools so that he or she may take up the responsibilities of these children that we have included. But you see, special educators are not many in the country and we are managing with those that we have in the unit". – Head of special unit*

These statements also give an indication that there is collaboration and team work between the special unit teachers and the regular teachers. Before my visit to the school, I called the head of the special unit and made arrangement to visit the school and also start my observations and the interviews. Within that week, the teacher, the mother and even the circuit supervisor had all been informed by the school. This shows the collaboration and team work among the stake holders. Collaboration and team work are important components of successful inclusion of pupil with ASD (Boer, 2009; Kirk, 2012; Johnsen, 2013).

The school also plays an advocacy role for the awareness and sensitisation of the local community towards children with special needs. It is this advocacy role the school plays that has increased understanding and awareness of the plight of children with special needs. These advocacy roles the school plays would be discussed under 'role of the community' in the next section.

5.4.2 The role of the mother

Kwame's mother has been the most advocator of Kwame's inclusion and even the source of inspiration for the inclusion of other children. During my interview with her she recounted the struggle she had gone through from birth of Kwame to the point I met her. The following statements from her chronicle her lonely struggles and decisions that got Kwame into BS 5 (Basic School 5);

> *"I took him to the father's place. I went to him. He did nothing. There were his mothers' (this referring to the husband's family) who said he's not a human being and other things. So I took mine back". "Even people in my home town said he wasn't a human being. Some even suggested that I should throw him away or go*

and 'see him off'. But luckily enough a pastor came to my hometown to preach and one of my aunts told me to go and show Kwame to him. So I sent him there".

The above statements give an indication of the mother's struggles and strong will to stand against her own family and that of the husband family. This same strength was also demonstrated when an attempt was made by some teachers to send Kwame back to the special unit.

"...I remember some time ago when I met one of the teachers, I think it was the class 4 madam I have forgotten the particular person, she told me the headmistress was looking for me. When I ask her why she was looking for me, she said Kwame's performance was low so she ask me what I am going to do about it. She also wanted to suggest if I could take him back to the special unit but I said no. I told them they should allow him to stay there. If he's able to complete the class 6, I will look for some apprenticeship for him. I told her that".

These statements above give an indication of the mother's 'fight' to give Kwame a better life. It also shows her continue involvement in Kwame's educational planning, decision making and implementations. The teacher also gave account of how the mother has been coming to him. This is what he said about one of his numerous interactions with Kwame's mother;

"She comes here and we interact with each other very often. The last time she came she said when he brings homework he does it himself. I think she has seen some improvement herself. The only problem is the hand writing. So she pleaded with me that I should help him with the hand writing".

The above statements also give an indication of the support and collaboration between the mother and the school. Again, this is an indication of the trust and appreciation that she has for the teacher. According to Boer, (2009) trust is the basic element of cooperation among the players for successful inclusion.

5.5 How does Kwame (the pupil with ASD) cope with regular classroom activities?

I have already discussed some of the challenges that pupil with ASD faces in coping with the regular classroom activities elsewhere in this study. I have also discussed Kwame's own difficulties and his abilities as well in section 5.1 in this chapter. This section focuses on what facilitate his inclusion in the regular school, BS 5B.

Firstly, the main objectives of attaching special unit to the regular school are to facilitate social interaction and foster the inclusion of pupils with special needs in the mainstream. These objectives were emphasized by the headmistress and the head of the special unit during my interviews with them. This is what the head of the special unit said about the objectives of the school when I interview her;

> *"Is a policy by GES (Ghana Education Service), and then since is a global thing and Ghana also embraces the concept, and with the help of GTZ (German Technical Corporation), this school was established and then teachers have been posted to the school to help include our children, children with special needs education, into the regular school system. So is a policy of GES, that's the government".*

As a result of this program, children from the regular school and those from the special unit play together and know each other prior to their inclusion. The benefit of this program was also corroborated by Kwame's teacher when he said that his pupils know Kwame very well so they always try to avoid anything that brings fracas between them.

Some of the specific activities deliberately organised by the school to foster interaction between the regular school and the special unit can also be picked from my interview with the headmistress. She recounted how the school purposefully allowed the children from the special unit to lead the school in the 6th March independent celebrations. This is what she said;

> *"Just last May ending, we celebrated our 70th anniversary. The celebration was organised in such way that, you see it was Methodist School. We didn't separate them. Even during the 6th March, they led the Methodist School. I think they're*

also happy the way we involve them. It makes them feel that they're also part of the society and belong to a society that accepts them".

Such deliberate programs, beside achieving social interactions and fostering cordial relationship among the children, also play an advocacy role in the community. It is able to create awareness of the plight of children with special needs. The headmistress revealed how the school used the 70th anniversary to sensitize the audience about children with special needs and addressed some of the negative attitude towards children with special needs. In my interview with both the headmistress and the head of the special unit they mentioned some of the negative perceptions such as insane, children of river gods, curse children, family sin against the gods of the land, and so forth.

"After the chorography performance during the 70th anniversary the head of the special unit took the microphone and asked the audience if these performances, the children have put up, can come from children who are insane". - Headmistress

The headmistress emphasized in my interview with her that the purpose of such activities was to sensitize the community of the negative attitude against inclusion of children with special needs. Such attitude towards children with special needs resulted in some parents withdrawing their children from Methodist school when they were initially included. This was lamented by the head of the special unit.

"Initially, it was difficult. Parents withdrew their children from the Methodist Basic because they thought that disability is contagious and once you get into contact with children with disability your child would also be infected as well".

So, in the school quest to reduce these kind of stigmatization, the school organized such activities to sensitize the community. According to the headmistress,

"So all that we're trying to tell the general public is that, these children are not insane. We thought they were children from water gods in the olden days. But these days, thanks to modern knowledge, we know that they are not children from gods. They're humans like all of us. So we advise parents that, if they have children like that, they shouldn't hide them. They should bring them to school".

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This section cannot be concluded without mentioning specific contributions from the pupils in the BS 5B in the successful inclusion of Kwame.

5.6 How do the other pupils in the class manage to include him (pupil with autism)

This section discusses the roles of two important stakeholders who have direct influence in the successful inclusion of Kwame in BS 5B to highlight how the other pupils in the class manage to include him (pupil with autism). These are the class teacher and the school authorities.

5.6.1 The role of the teacher

During the period of my observations I saw Kwame always surrounded by two or three pupils at break time or at their lunch (canteen) time. I also observed that the pupils allowed Kwame to sit with them on the same desk, as I have discussed in the previous section in this chapter, without protest during lessons. When the bell goes for break and he had not finished his work, I observed that, some of the pupils would even go to his desk and would be reading out the letters for him to write ostensibly to help him finish his work. In my interview with the teacher which is quoted in section 5.2, he also pointed out that because the pupils know Kwame very well they always try to avoid anything that is capable of degenerating into fracas.

The above strategy coupled with other strategies mentioned earlier in the previous sections such as making the children sit in turns with Kwame are all strategies that have the capacity to improve his social relationship with the non-handicap peers in the classroom.

5.6.2 The role of the school authorities

In addition to the contributions of the deliberate activities the school authorities have organised that have fostered Kwame's successful inclusion, I would like to share here some few thoughts from my interview with the head of the special unit, which I believe have also helped the regular pupils to have successfully stayed in one classroom with Kwame.

First, the establishment of the special unit in the same Methodist School compound has allowed the regular school children and the special needs children to play together, attend the same canteen, share the same facilities such as; toilet, water source, playground, etc. So, it was not surprising that the head of special unit had this to say when I interviewed her:

> *"My satisfaction is that the children have accepted our children in the same class. Yes, and I will say that if not for hundred percent, children have kind of accepted our children"*

Beside these opportunities that allowed to share together these school facilities as a result of their proximity, the school authorities organised these games with the primary aim of sensitising the parents too:

> *"We introduced games and that we bring the so called regular children with our children and they (parents) come and see us. We play football, ampe (local game mostly play by young girls) and all kinds of games, so they started getting along with us".*

As a result of these activities the school has been organising, before even the inclusion of pupil with special needs (and for that matter, Kwame's inclusion) the regular children and special needs children have known themselves and have built friendship with one another already.

5.7 The relationship between the school and the community

The head of the special unit in an interview with me talked about how some parents withdrew their children from the school at the initial stage of the program but that initial attitude is changing due to the continue education and sensitizations programs the school in collaboration with the Methodist Church have been organising for the church members and the community. Beside the activities, the school helps the parents of children with special needs to access some of the support initiatives in the country. This was revealed through my interview with the head of the special unit;

"...we managed to speak to the national health insurance authority and recently they registered all our children free of charge under the scheme so they'll be able to access basic health facilities for their children. Also, the Methodist Bishop during Xmas break would prepared some food and come and share with us. He does that once in a while".

Beside the above program, the headmistress also mentioned other programs such as the school's 70th anniversary and the 6th March Independent parade the school and the church have undertaken that have also contributed positively to sensitization and awareness of the plight of the children like Kwame and other children with special needs in the Effiduase community and its environs.

Public education and sensitization programs have contributed to the changing perceptions on people with autism in the Sekyere East district of Ghana, but the attribution of supernatural causes of autism needs to be highlighted in this thesis.

5.8 Spiritual effect

According to J.A. Anthony (2009), the belief in Ghanaian traditional religious superstitions still permeate in many Ghanaians although Christianity and Islamic religious beliefs dominate in the country. This superstitious belief reflected in most of the interviews.

Firstly, the mother recounted how Kwame as baby was bewitched in a public transport when other passengers were admiring how beautiful the baby was.

"It was in that bus that people started asking whose baby is this. Is it you this young girl who has given birth to such a beautiful baby? Then there was a woman sitting beside us who warned us that we should cover the baby otherwise someone may cast a spell on him. And truly, when we reached our home that night he (baby) didn't sleep. He cried the whole night".

This coupled with other quotations from the mother emphasizing that people asked her to throw Kwame away because he is not a human being highlight spiritual effect of autism.

5.9 Summary of the chapter

In summarizing this chapter, I would like to revisit the theoretical framework of the study which makes emphasis of ecological approach to the child's development (Bronfenbrenner, 1979). This ecological approach focuses not only on the child at the center of modification but also focuses on the environment within which the child interacts, in other words, the entire context of the child's life (Kirk, 2012). These environments are the community, the family, the school and the peers.

This study took interest in how these have contributed in successful inclusion of Kwame in class 5B. The discussions of various sections in this chapter have indicated how the mother, the teacher, the school authorities, the pupils, and the community especially the church have all contributed immensely in the inclusion of Kwame.

I started with Kwame, the pupil with ASD in the mainstream class 5B. I looked at his strength and his weaknesses, and the challenges that these challenges present to his inclusion. I agree with researchers who are of the view that in dealing with a complex issue such as education of pupil with ASD in an inclusive classroom we need to look at the child holistically. That is, to deal with all the environments that are connected for the successful inclusion of Kwame. On the bases of this approach the study looked at the family or to be precise, the mother. I have discussed the support at home, the advocacy role that she plays, and collaboration with the teacher and the school authorities.

Again, in looking at Kwame within the school system, the study looked at the class 5B classroom, the teacher, the peers, and the structures of the class such as; furniture, class-size, etc., the barriers that they present to his inclusion and the strategies the teacher used to address these barriers to Kwame's inclusion.

The chapter discussed the enormous role plays by the school authorities in promoting interactions and friendship between the regular pupils and the special needs pupils. The chapter also discussed the contributions of the school and the church community in minimizing barriers such as stigmatization, teasing and other negative attitude towards the inclusion of Kwame and the other pupils with special needs.

6 Comment and conclusion

6.1 Introduction

This chapter examines data in chapter 5, the literature in chapter 4 and chapter 2, the perspective of Ghana. Based on these chapters, I will draw my comment on three categories. These are **commitment**, **stigmatization** and **challenges**.

6.2 commitment

Discussion under this theme concentrate on the contributions of the various stakeholders who are making it successful for Kwame's inclusion. The stakeholders this study focuses are the mother, the teacher, and the school authorities. There are also the church and the government of Ghana who are also playing indirect roles. I start with the mother who has sacrificed everything including her marriage for Kwame. She defied the pressure from her own family and from the husband's family at the peril of her marriage when they put pressure on her to kill him (Kwame) because of the superstitious beliefs that he is either a child of the river gods or some witch might have cast the disease on him as she the mother herself believed. Again, her commitment to keep Kwame in the mainstream were also demonstrated when she stood against attempt by one of Kwame's previous teachers to send him back to the special unit. As part of her responsibility to Kwame she been the main advocacy for change of societal attitude towards Kwame and other children whom she felt could also make it at the mainstream school. Having sought Kwame's inclusion, she advised Joe's mother to also seek for Joe to be included in the mainstream.

Beside the mother, Kwame's class teacher also shown a great deal of commitment and dedications to his work. In spite of the lack of resources such as teaching aids, inadequate professional support from resource persons, lack of individual education plan for Kwame, and so forth. He has devised his own ingenious method by making use of peers of the class to help Kwame. Even those children he considers not academically good, he did not leave them out. He is able to lure Kwame's participation in the class lesson through those pupils. The school authorities in my observations and interviews with the headmistress and the head of the

special unit also demonstrated a lot of commitment to keep Kwame and the other children they have included in the mainstreams classroom amiss the initial protest from the community. Analysis from the interviews I had with the headmistress and the head of the special unit indicate the series of activities they had to organize to sensitize the community to get along.

Another stakeholder that has played an indirect role in support of Kwame's inclusion is the church. As I have stated in the chapter two of the study, over 70% of Ghanaians are said to be Christians. So, in order to reach out the majority of the community the school needed a platform that hold the majority of the community. It is the church that offered that platform to the school. Kwame and his mother are also being housed by the church when the mother left her home town, apparently running away from the pressure from her family. They live in the mission house with the district bishop and his family. This demonstrates the church's commitment for successful inclusion of Kwame.

This study cannot also overlook the commitment on the part of the Government of Ghana. In the chapter 2 of this study, I listed the various legislations and provision the government and Ministry of Education have put in place for inclusion of pupils with disabilities. The government besides the policies, has provisions such as school feeding and free health insurance for all the pupils with special needs. Although in my interviews with the teacher and the school authorities it was clear that successful inclusion of Kwame, and the inclusion of pupils with disability, needed more than just policies and legislations. Other things needed will be part of the discussion when I come to the challenges.

6.3 Stigmatization

One thing that come out clear during my interviews was stigmatization. Starting from the mother's own family and from the husband's family. The pressure put on the mother to 'throw him away' was the fear of stigma of having a child with disability in the family. Although factors of stigmatization were not part of the focus of this study, it was also clear from the interview I had with the head of the special unit that some parents withdrew their children from the school with fear that their children may also be affected with the impairment if they stay in the same class with Kwame. In chapter 2 of this thesis I mentioned that one of the causalities some Ghanaians attribute autism to beside the spiritual is the

biomedical. Some of the parents' reactions of withdrawing their wards from the school may have borne out of this belief of biomedical explanation of autism. Besides these beliefs associated with autism, the school authorities in collaboration with the church managed to control these stigmatizations through sensitizations. Interviews with the headmistress and head of special unit give account of various activities that the school and church organized to sensitize the community.

6.4 Challenges

The challenges that I will focus the discussions on are the inadequate teaching aids, inadequate resource persons, and the lack of professional knowledge. Again, the discussions of these terminologies is limited to information in this study and not the theoretical perspective of these terminologies.

6.4.1 Inadequate teaching aids

Although the Government of Ghana on policies have demonstrated a lot of commitment on paper, these have not been matched with the provisions of teaching and learning materials needed for the effective inclusive education that those policies intend to champion. According to Anthony (2009), in 2004, the budget allocated to SEN was just 0.5% of the total government education budget and dropped even further to just 0.3% by 2008. As I have stated in chapter 5 of this study, flexibility in the classroom is almost impossible because of the heavy dual desk furniture. Beside the fixed blackboard and few other cardboards hanging on the walls, there are no teaching and learning materials in the classroom that are available for the teacher and Kwame. For example, on second day during my observation, I observed a lesson on computer. Here was the teacher standing on the blackboard scripting something on the board that seem to me like keyboard, and that was the only tool the teacher had to teach home keys with. And in front of the pupils were textbooks with pictures of home keys. Here was the teacher having to teach a pupil with autism, who easily get anxious in an unpredicted classroom (Kirk, 2012), without having the real computer.

6.4.2 Inadequate resource persons

According to Kirk (2012) successful inclusion of children with autism requires a multidisciplinary team. A team that required someone with the knowledge of ASD whom the teacher can fall on whenever things get difficult (Kirk, S., et al,, 2012). Evidence from the data from the interviews indicate that there is no such an important component available. Although, in government document on inclusive education policy, 2015, provisions are made for Kwame to have one. In the absence of this team, the special unit apparently act as a resource center for the school which either the teacher or Kwame goes when he needs help.

6.4.3 Knowledge resources

Autism as stated earlier in this study is complex, unique and remain a puzzle to many researchers and educators regarding appropriate education and intervention strategies for children with ASD. According to kirk (2012) although research has not been able to identify one educational strategy appropriate for all children with autism spectrum disorders, what is important is that teaching strategies should meet the individual needs of pupil with autism. All children on the autism spectrum demonstrate some degree of impairment in social and emotional understanding, communication and flexibility in thinking. There are many core skills which are prerequisites to acquisition of other skills needed in mainstream classroom which many pupils with autism lack (Anthony, J., A.; Boer, 2009). Anthony explains that although, mainstream class teacher needs not to be expert in autism but a teacher's understanding of the shared features of autism and the underlying of information processing challenges of pupil with autism may also prove essential to the meaningful inclusion of pupil with autism into mainstream classrooms.

In the case of Kwame's inclusion, the teacher's biggest strategy was to rely on Kwame's peers: either making him sit with 'good pupils' in turn or to lure in participation in class lesson through some particular pupils. Relying heavily on these pupils who have no knowledge of teaching these critical core skills presupposes Kwame may not grasp anything these peers are intended to offer and that relying heavily on that stratege may not at all be beneficial to him.

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Again, one of the major challenges that the mother and teacher had is Kwame's tantrum. For instance, the mother expressed worried in the interview I had with her that Kwame always complained that she, the mother, shouts at him. As indicated in the chapter 3 that sensory integration dysfunction or sensory processing disorder is one of the major problems with many children with autism. Perhaps, a better understanding of this feature may have assisted the mother to understand possible link between Kwame's tantrum and this impairment, and could have helped the mother to moderate her tone anytime she interacts with him.

In conclusion, after analysis of the data from the observations and interviews, lack of sufficient resources and resource persons are the most serious challenges to the successful inclusion of Kwame (pupil with autism).

6.5 My reflections on the study

When I finally settled on this topic I contacted some old colleagues' teachers to look for a study site on my behalf. Some of the questions that I got from those friends were; are you sure you would be able to have such schools? When I finally arrived in Ghana I contacted the Asokore[5] sub-metro in Kumasi where I was directed to Kumasi Special School. One of the segregated special school for children with mental impairment in Ghana. I went to this school and met one of the teachers who then directed me to Effiduase Methodist School and gave me a contact to the head of special unit whom I contacted immediately. I am giving this chronology to show lack of publicity and the seriousness attached to such a laudable program by the government of Ghana. Even among teachers and administrators of the GES, very few people have an idea of the existence of such pilot schools where children with ASD can be included.

Also, after I got the permission to do my research in the school, I was introduced to Kwame's class, class 5B. This classroom was not different from most of the normal classrooms I used to know as formal teacher myself. With just dual-desk furniture, few cardboards, normal blackboard, and almost nothing extra. I must say that as part of my program I had the privilege to visit some inclusive schools in Oslo, Norway and saw some well-equipped classrooms with additional technology that assist teachers and pupils with autism and special needs in teaching and learning. My first impression was, how can inclusion of pupil with

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[5] Asokore is a town in the Ashanti region of Ghana.

autism be possible with such environment. But upon reflections on my stay in the school, I have convinced myself that attitude is the most important barrier to inclusion.

Further, my general opinion of the study is based on the answers I got from the questions I posed to my respondents. Here is one of the questions: how satisfied are you with inclusion of Kwame. I asked all the respondents this particular question and in the responses that I got, there is similar themes that runs across – acceptance and dedication. It was clear that the Government of Ghana through the Ministry of Education has made several significant statutory documentations to show its commitment to the international treaties that it has committed itself into. The Education Strategic Plan (ESP) specifically mandates inclusive education (IE) at a policy level as the most appropriate provision of education for students with special needs. It is because of these provisions that got Kwame into class 5B classroom. What is evident in this study is that these IE provisions have not been matched with the resources to enable teachers and educators of Effiduase Methodist Primary School handle the learning needs of Kwame for his successful inclusion.

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APPENDICES

APPENDIX 1

Interview items

Interview with the headmistress.

1. Madam, can you introduce yourself?

2. How old are you?

3. How long have you been a teacher?

4. How long have you been the head of the school?

5. Why was your school chosen for this programme?

6. How many teachers in your staff have special needs training?

7. How many special needs children do you have in your school?

8. How many children from the special school have you been able to include in the mainstream?

9. Your mainstream teachers, what kind of training have you given them about how to handle those pupils you have sent to their classrooms?

10. Has there been any complain from the regular teachers concerning special needs children you have sent to their class?

11. What kind of help do you give to the teachers who have special needs child(ren) in their class?

12. What is your opinion about this kind of inclusive education that you are practicing here?

13. What kind of relationship do you have with the parents of these children?

14. What kind of suggestion will you give to improve the inclusion, particularly, these children in the regular classrooms?

15. What steps are you taking to limit or stop these teasing and name callings?

16. Madam, what are the most pressing needs that you think would help to improve the kind of inclusion you practice here?

Interview with the class teacher

1. Sir, can you please introduce yourself?

2. How old are you?

3. How long have you been a teacher?

4. What is the enrolment of your class?

5. How many of your pupils are special needs pupil?

6. What are the specific needs of Kwame?

7. For how long has he been in your class?

8. Where was Kwame before he was brought to your class?

9. Did you sit down and had special agreement with them before he was brought to your class?

10. Please, can you tell me the reason Kwame was brought to your class and not the other class?

11. What is your professional qualification?

12. Do you have any training on teaching pupil with special needs?

13. Since they brought Kwame to your class, how do they help you in teaching him?

14. So when you are teaching, what kind of arrangement do you make to help you teach him?

15. How is his relationship with the other children in the class?

16. Since he came to this class, have you experience any major incidence in the class?

17. Have the rest of the children reacted in any way since He joined the class?

18. How have the parents taken the issue of Kwame been in the same classroom with their wards?

19. Since he came to your class, or since you started handling him, what has been the change, or any improvement have you observed?

20. Has any of the children complain about his behaviour? If yes probe;

21. What do they complain about?

22. Have you had any interaction with Kwame's parent(s) concerning him?

23. Have you sat down with the parent(s) to discuss about how you can help Kwame?

24. Sir, how long have you been teaching in this school?

25. You have handled two children with autism, at least for the past five years as you said, what is your opinion about their inclusion?

Interview with the mother:

Interviewer: My name is Aboagye Francis. I'm a student of University of Oslo. I am writing a thesis on inclusion of pupil with autism in a mainstream classroom. I'm here in the house of the mother of the pupil with autism who is included in the Government of Ghana's inclusive education pilot programme at Effeduase Methodist Primary School.

1. Mother, can you introduce yourself? Your name is not important here, please.

2. How old is Kwame?

3.Where does he attend school?

4. Can you tell me a little unique thing about your son?

5. Mother, how many children do you have?

6. Mother, may I ask why you divorced? You may choose to ignore this question.

7. When you delivered your baby, did you notice anything significant of him?

8. Were you still living with the father when he started getting sick?

9. Did you separate with you husband because of the child's situation?

10. So, when you realised that there was something unusual about the child, what did you do?

11. Did you tell the father when you noticed that unusual behaviour?

12. When your husband's mothers said Kwame wasn't a human being, what did the father do?

13. Where did Kwame start school?

14. So, at the Asankragua (a town in the Western Region of Ghana) at normal school, why did you relocate to Effiduase?

15. So all that period that he was not able to walk or talk and people were saying that he was not a human being, what did you do?

16. Did you take him to hospital during that period?

17. Where did he start school when you relocated here?

18. How did you know that it was Special Unit that Kwame should go?

19. Did you yourself decide to enrol him at Special Unit?

20. You have mentioned that there was improvement initially but he started changing again. What improvement did you notice? How was he changing? And what change did you notice?

21. What did you do when you noticed that he was changing?

22. So you were the one who insisted that he should be taken to the mainstream?

23. What changes have you observed since he joined the mainstream?

24. Do you know his class teacher?

25. How many times have you gone to the class to observe how he is being handled?

26. Have you been invited by the teacher for any interactions concerning Kwame's learning?

27. You have said you don't give him food in the morning, why? Any particular reason?

28. Have you tried to teach him yourself?

29. Right now that he is in the mainstream, what's your opinion about Kwame inclusion?

30. How satisfied are you with Kwame's inclusion?

31. What plans do you have for him after primary 6?

Interview with the special educator

Int: My name is Francis Aboagye, student of University of Oslo. I'm researching into inclusion of pupil with autism in Effiduase Methodist Primary. I am sitting here with the head of department of special unit at Methodist Primary, Effiduase. Madam, introduce yourself, your name is not important.

1. Thank you very much. Madam, can you tell me your responsibilities as the head of special unit?

2. How many special units do you have in the district?

3. Can you please describe the kind of special needs education you have or you practice?

4. I heard you mentioned inclusive education, why did you choose to establish inclusive education in this district?

5. So you started the school?

6. How long have you been in existence?

7. Why did you choose to establish the school in Methodist school?

8. You mentioned Government Policy on Inclusive Education, can you describe what the policy is about?

9. How do you identify children with special needs in your district?

10. With my little bit of observation at your unit, I have seen a lot of grown up pupils, what about them?

11. How many professional special needs teachers do you have at your centre?

12. Since you started the school how many pupils have you been able to include in the mainstreams schools?

13. What kind of help do you receive? And where does it come from?

14. Beside the government supports and the directorate, do you receive any help from any other organization?

15. What sort of help do you give to those teachers whom you have placed a child with special needs in his or her class?

16. What is your relationship with the family of those children in the inclusive class?

17. What is your relationship with the community?

18. Those regular classes that you've placed your children, how do the regular children relate to your children – the pupil with special needs that you have placed in the class?

19. When you speak with Kwame, what is his impression of his inclusion?

20. How satisfied are you with Kwame's inclusion so far?

21. You mentioned lack of resources, can you say specifically the most pressing resources that you need in this school to enhance teaching and learning so far as inclusion of these your children is concerned?

22. What is your professional qualification?

23. How long have you been teaching?

APPENDIX 2

<u>Consent form</u>

This is a qualitative case study and it is about how teachers meet the needs and teach pupils with autism in an inclusive classroom. The study explores the strategies teachers and pupils of Effiduase Methodist Primary 5B use to include their colleague pupil with autism in the class.

Objectives of the study

To find out the strategies teachers use to include the pupil(s) with autism in the class?

To find out the support(s) that the teacher receives?

To find out how the pupil with autism cope with the regular classroom activities?

To find out how the pupil with autism interact with other regular pupils?

To find out how the peers in the class manage to include their friend who has autism in the class?

Methodology.

Observation*:* The researcher will seek permission from the school authorities as well as the teacher to observe the classroom activities regarding how the teacher tries to handle and include the pupil with autism in the regular classroom and the interaction between the pupil with autism and the regular pupils.

Interviews: Semi structured interviews and unstructured interviews in the form of informal conversation will be used. The researcher will be visiting you (the informants) either in the school, your home (s), or at specific convenient places that you shall agree to conduct the interview. Confidentiality and privacy will be highly upheld during the selection of meeting places and you (the informants) will decide on the meeting place(s).

The interview will involve conversations about: the characteristics of the pupil with autism; the strategies the teacher is using to include the pupil with autism in the class; the support(s) the teacher is receiving; how the pupil with autism is coping with the regular classroom activities; how the other pupils manage to include the pupil with autism in the class. Each interview will last for approximately an hour.

Data recording

The researcher will use both tape recorders and notebooks to record data during observations and interviews based on your (the informant) approval. Also, the decision regarding either to use the tape recorder, notebook or both will be dependent on the prevailing situation.

Participation in the study.

Participants in this study will be selected from inclusive schools. To participate in this study, one must be a pupil with autism in an inclusive class, a teacher with a child will autism in her/his regular classroom, a parent to a child with autism in an inclusive classroom, and a head of an inclusive school.

Participation in this research, that is, in the interview and observation is voluntary. No one will be victimized for non-participation in the interview and observation. In the same way, there are no payments, compensation, or rewards for participation in this research as this research is purely for academic purpose.

During interviews, an informant is free not to answer any question, or not to discuss issues which she/he considers to be sensitive. Also, the informant has the right to stop the interview at any time he or she wishes. In the same way, the informant has the right to cancel any appointment with the researcher at any time if she/he wishes.

All information given to the researcher will be protected with strict confidentiality and names will not be mentioned in the data analysis to ensure anonymity. After the research is completed, all tape recorders and notebooks will be destroyed.

Any complaints about the conduct of this study or your participation in it can be referred to:

The headmistress of Effiduase Methodist Primary School

Effiduase, Ashanti Region, Ghana

Mobile: +233 244937099

And/or

Francis Aboagye (student)

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Department of Special Needs Education

Faculty of Educational sciences

University of Oslo

Mobile: +233 243801392/+47 94736276

and/or

Prof. Kolbjørn Varmann.

Faculty of Educational sciences

University of Oslo

Oslo, Norway

Mobile: +47 90088141

I……………………………………, have read the above information, or it has been read to me. I have understood them/ part of them and I have received clarifications on those that I do not understand. Thereby, I consent to participate as a respondent in this study voluntarily.

SIGNED BY:

Informant---

Witness--

Researcher--

APPENDIX 3

<u>Introductory letter</u>

ABOAGYE, Francis

Date: 29 June 2015
Your ref.:
Our ref.:   int./2015 JBH/db

TO WHOM IT MAY CONCERN:

This is to certify that **ABOAGYE, Francis,** date of birth 21.12.1976, is a full-time student pursuing a course of study at the Department of Special Needs Education at the University of Oslo, Norway, leading to the degree of Master of Philosophy in Special Needs Education (M. Phil. SNE).

This is a continuous two-year programme run on the "sandwich" principle, which involves periods of study and field work/research in both Norway and the home country. The student has successfully completed the first two semesters (autumn 2014 and spring 2015) of the initial study period in Norway and will then be working on the collection of data and the writing of a thesis during the autumn semester 2015. This involves two periods of field work in Ghana from approximately 1 – 31 July 2015 and 1 – 31 October 2015. When the field work is complete the student will return to Norway. The total period of study will be completed at the end of May 2016 in Norway.

The main responsibility for supervising the research, developmental work and thesis remains with the Department of Special Needs Education, University of Oslo, Norway. However, we would kindly request that the relevant authorities give the student the access required to the schools and educational establishments necessary in order to undertake field work, research and training as International Child Development Programme (ICDP) facilitators. We would also be most grateful for any assistance that is afforded to the student which enables him to carry out this work, particularly the use of facilities such as access to telephone, fax, e-mail, computer services and libraries at the various educational establishments.

Yours sincerely

Associate Professor Jorun Buli-Holmberg
Joint Academic Head of International Master's Programme
Department of Special Needs Education

Officer in charge:
Denese Brittain (+ 47) 22 85 80 75, d.a.brittain@isp.uio.no