Knowledge, Attitude and Practice of Inclusive Education; Case Study of Young Person with Autism Spectrum Disorder in Nigeria

Submitted for the Degree of
Doctor of Philosophy of
At the University of Northampton

2018

Remi Odunsi

Abstract

This thesis explores the impact of knowledge and attitude in the practice of inclusive education in Lagos State, Nigeria through the case study of a young person with autism spectrum disorder (ASD) in a mainstream primary school. The study looked at how the inclusive education policy adopted by the country in their National education policy (2004, 2008) is formulated and implemented in schools. The study identified the mechanisms that were constraining the process of inclusive education at the different levels of the social systems in which the schools are embedded and the reasons for the poor implementation of the policy.

The survey of the teachers which was carried out by questionnaire revealed that their knowledge and understanding of Autism Spectrum Disorder is generally low. The age and qualification of the teachers were linked to the level of knowledge of ASD. The interviews of the key professionals around the young person with ASD confirmed the link between the age and qualifications of the professionals to their knowledge and attitudes towards young people with ASD and disabilities in general. The professionals, including the teachers who have knowledge and understanding of ASD are not sharing them with those who do not have because of the lack of leadership at the school, local authority and the national level needed in promoting inclusive education. The education administrators at the local authority level who are supposed to monitor the implementation of the policy in schools are constrained by their low level of knowledge and negative attitude. The Federal ministry of education that is responsible for the special needs education in the country stopped at the formulation of the policy without clear guidance on its implementation at the different levels of local authority and school.

The study concluded with recommendations for the implementation of the recently formulated Special Needs Education Policy that is accompanied by guidelines. The negative attitudes from the cultural beliefs and values can be addressed through knowledge and understanding of SEND. The knowledge is needed by all involved in education of people with special needs as this will enhance their practice of inclusive education. This knowledge that the country needs is already available through the professionals and teachers that were trained in the teacher training colleges and universities specially designated for that purpose. The training of teachers can be done by the teachers and professionals who have the knowledge of the different types of SEND. All the education administrators from the school, local authority level up to the national level that are responsible for the implementation of the policy need the knowledge that can come through training and continuing professional development as well as multi-agency approach to management of people with disabilities.

Acknowledgments

Acronyms

APA	American Psychiatric association
ASD	Autism Spectrum Disorder
AS	Asperger's Syndrome
BERA	British Educational Research Association
ECER	European Conference on Educational research
EFA	Education for All
HFASD	High-functioning autism spectrum disorder
ICD	International Classification of Diseases
IEP	Individual Educational Plan
NGO	Non – governmental Organisation
NPE	National Policy on Education
NPSNEN	National Policy on Special Needs Education in Nigeria
SENCO	Special Educational Needs Coordinator
SEND	Special Educational Needs and Disabilities
SNE	Special Needs Education
SUBEB	State Universal Basic Education Board
SNERs	Special Needs Education and Rehabilitation
UBEC	Universal Basic Education Commission
UNESCO	United Nations Educational Scientific and Cultural Organisation
UNICEF	United Nations Children's Fund
WHO	World Health Organisation

List of Figures **Pages**

List of Tables   **Pages**

Contents

Chapter1: Introduction

1.1 Key issues

The Fourth of the United *Nations Sustainable Development Goals* (SDGs) (UNDP, 2015) is to "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all." Prior to this in 1994 the Salamanca statement on principles, policy and practice in special needs education that included framework for action (UNESCO, 1994) reaffirmed the commitment to 'Education For All' (EFA) declaration of 1990 at Jomtien in Thailand and urged all governments to 'adopt as a matter of law or policy the principle of inclusive education, enrolling all children in regular schools, unless there are compelling reasons for doing otherwise.' The Nigerian government adopted an inclusive education in their national policy on education (2004) without consideration of their own particular context as the framework for action suggested that it 'be adapted to fit local requirements and circumstances.' In this thesis, the policy was investigated from the classroom where it should be implemented by the teachers to the national government level where it was formulated for causes of the outcome perceived from the practice. The classroom is embedded in a social system with different levels that can influence what goes on in it.

In every national system that inclusive education is practiced, there are many contextual factors (mechanisms) present (Mittler, 2000). The critical realist (philosophical position) described mechanisms as "nothing other than the ways of acting of things" (Bhaskar, 1978). Easton (2010) suggested that "perhaps the simplest way of regarding mechanisms is that they are ways in which structured entities by means of their powers and liabilities act and cause particular events." These 'things' or entities, in this thesis are the people who possess causal powers for events to happen. The critical realists explore the outcomes or behaviours of people that are visible (Easton 2010). In this thesis the powers and liabilities that are explored for their impact on the practice of inclusive education in Lagos State, Nigeria are the knowledge and attitude of the people around a young person with Autism spectrum disorder (ASD) in mainstream school. The mechanisms in any particular context in which inclusive education is practiced can constrain or enhance the expected outcome of the process. 'Critical realists also believed that the non-occurrence of an event when one is expected not only requires explanation but may also provide very useful insights.' (Easton, 2010) The knowledge of inclusive education and ASD come from education and training while the attitude come from cultural beliefs and values and are usually established before education as they are passed from generation to generation by written or oral method (Eskay, Onu, Igbo, Obiyo, Ugwuanyi, 2012).

The ecological systems theory developed by Bronfrenbrenner (1977) (Fig1.1.) explains how a child's development is influenced by interaction between the child and their surrounding layers of social environment.

Microsystem
(classroom/ home)

Mesosystem
Head teacher/HIU/ST

Exo system
(SUBEB/ NGO,)

Macrosystem
(Policy/culture)
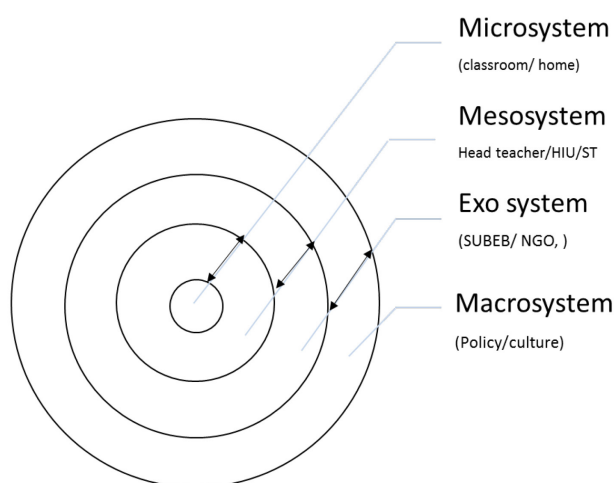
Fig. 1.1 socio-cultural systems around the young person

 Rosa & Tudge (2013) claimed that 'from the start the developing individual was consistently viewed as influencing and being influenced by the environment.' The part the family plays during interactions at home is very important. The socio-cultural systems in which the young person and the education system are embedded can influence and be influenced by what goes on in the classroom (Robson, 2002). The systems are; microsystem (classroom/home), mesosystem (school), exosystem (school boards, local authority, Non-governmental organisations (NGOs)) and the overall arching macro system that includes the national government and the culture that includes legal, economic, beliefs, values as well as the religion of the people that shapes their attitude to disabilities in general.

ASD is on a continuum and the symptoms are identified by behaviour. It ranges from very severe with no speech and with learning difficulties to very able children with speech and pockets of exceptional abilities. ASD has been identified in all races, ethnic groups and socioeconomic classes. (Bello-Mojeed, Bakare & Munir, 2014) In Nigeria, only those with severe autism are identified and diagnosed for treatment in psychiatric hospitals (Bakare and Munir, 2011) or placed in special schools and inclusive units attached to mainstream schools. Search of literature did not reveal the awareness or identification of children with "mild" ASD who are highly likely to attend mainstream schools. They may be struggling to stay in the schools unless their unexplained behaviour leads to their exclusion. Without the teachers' knowledge of ASD, their negative attitudes will impact their professional practice and their social interactions with such children, thus impacting on their inclusive education experiences and outcomes. (Obiakor and Afolayan, 2011)

In the light of such considerations, a range of challenges and opportunities currently obtain which affecting the practice of inclusive education in Nigeria are: (1) the formulation and implementation of inclusive education policy in Lagos state and the National government of Nigeria. (2)The level of knowledge of ASD among the teachers who are likely to be the first professionals the children with ASD without diagnosis will come into contact with in a mainstream school. (3) The knowledge of ASD among the key professionals around a young person with mild ASD in the practice of inclusive education in the context of Nigeria mainstream schools. (4) The attitude to disabilities in general in the country and (5) Identification and impact of the other mechanisms at the different levels of the social strata of a developing child on the outcome of the process of inclusive education for young people with mild ASD in Lagos, Nigeria.

1.2 Research Questions

From the key issues above the practice of inclusive education in Nigeria can be impacted by the knowledge and attitude of the professionals in the community who are around young people with SEND in mainstream schools. The primary school teachers are the most important as they are likely to be the first professionals that a young person who has not been identified with ASD will see, hence their knowledge of ASD is very crucial for the inclusive education of the young person. The practice of the parents and the other professionals who can provide the appropriate support for the young person depend on their knowledge and attitude towards SEND.

In order to explore the practice of inclusive education and the impact of the knowledge and attitude of the professionals in the community, the following questions guided the thesis:

What are the knowledge, attitude and practice of key individuals (teachers, parents and professionals) regarding inclusive education and ASD?

How might these impacts on the experience of young people with autism?

1.3 Methodology

Having considered the various assumptions of the approaches to research; the critical realist approach to real world research was chosen for this research. Both deductive and inductive reasoning (fig 1. 2) on their own were found unsuitable for the knowledge I want to gain from this study.

Deductive reasoning	Inductive reasoning	Retroductive reasoning	Abductive reasoning
Proceeds from theory to observations. (Thomas, 2009)	Proceeds from observation to theory. (Thomas, 2009)	Looking backward Requires both deductive and inductive reasoning	Proceeds from an observation or set of observation to the most likely explanations. (Robson, 2002)

Fig 1.2 Types of reasoning

However, abductive or retroductive reasoning will enable me to study the mechanisms that must have been present while inclusive education should have been going on in the classroom. The critical realist approach to the research allows the use of mixed methods in a case study that combines the use of quantitative and qualitative method of data collection. While the quantitative revealed the relationships between the demographic details of the teachers and their level of knowledge of ASD, the qualitative data revealed the in depth influence of the knowledge and attitude of the people in the social systems around the child on the practice of inclusive education for children with ASD as well as the other mechanisms that are present in the context. As an individual case study:

> "Detailed account of one person. Tends to focus on antecedents, contextual factors, perceptions and attitudes preceding a known outcome (e.g. drug user; immigrant) used to explore possible causes, determinants, factors, processes, experiences, etc., contributing to the outcome."

> (Robson and McCartan, 2016 p.153)

This is a real world research of an open system that 'cannot be hermetically sealed from external influences.' (Robson and McCartan, 2016) The external influences come from the social systems in which the case being studied is embedded. The different levels of the social system and the mechanisms present in them in relation to the practice of inclusive education are explored using the ecological theory of human development (Bronfrenbrenner, 1979) as a tool to identify the individuals whose actions have impact on the outcome of the practice in Nigeria. The individuals are all in a community that is strongly influenced by their culture that may be different as there are many ethnic groups and religions in the country that are living and interacting with each other.

1.4 Positionality

I am a female, Nigerian-British who spent most of my formative years and education up to first degree in Nigeria. I grew up in a middle-class home where my parents were working and I was able to attend the best missionary schools at the time which were public schools as there were few government and private secondary schools for children who could not pass the common entrance for the government and missionary schools. Due to the low population of the country then and many children not going to school for various reasons including poverty and the status of the families, the class sizes were quite small. I was fast-tracked through my primary school due to my ability so was in a special class for gifted and talented. Throughout my school years I was only aware of young people with sensory and physical difficulties that I could see and they were all in special schools that were established by the missionaries and the government. I did not know of young people with intellectual disabilities or neurodevelopmental disorders and the members of my extended family who drop out of school could not explain the reasons for their inability to continue with their education. I was later told that they just could not cope with school and nobody bothered to find out the reasons for their failure.

Growing up in a Christian home, everything we did at home was guided by our cultural values and the religion we practice. My parents' decision to send me to school and the choice of schools were all dependent on their religion. I learnt to read and write in our local language at home through reading the bible.

I worked as an untrained graduate teacher in Nigeria for two years about thirty- five years ago and never heard of young people with special educational needs (SEN) although I observed a few students who couldn't read at the ages of 15, 16 and 17. Young people who found school difficult and were unable to cope with school dropped out of school and end up in poverty unless they are from wealthy homes. It was assumed that children who couldn't learn must either be cursed or have something wrong that cannot be remedied by education alone. Parents may seek alternative interventions in form of traditional medicine and therapies. Only children with physical or sensory impairments were provided for because the impairments can be seen.

As a trained teacher in the United Kingdom (UK) in the nineties in mainstream schools I became aware of children with special educational needs (SEN) and the provisions for them. In my first teaching role in a secondary school, I was given low-ability classes to teach. There were children with dyslexia, dyscalculia, social, emotional and behavioural difficulties in my mathematics and science lessons that were supported by teaching assistants but I did not receive any special training only suggestions from the Special Needs Coordinator (SENCO) on strategies for teaching specific children on the SEN register. I was able to use my own initiative to improve on their basic skills that were lacking and with enabled them to pass their public examination that they had thought was beyond them. Having realised that with the right strategies in teaching, learners who are struggling to learn

could still achieve their potential, I decided to move to special school to teach. I had used the knowledge and skills that I gained from my Master's degree course that I started part-time in my second year of teaching to meet the needs of the young people I was teaching effectively.

While teaching in special schools for young people with social, emotional and behavioural difficulties (SEBD), I was sent for training in that particular field and my subject (mathematics) area but had no knowledge of children with ASD whose behaviour could have been used to identify them if they were present in my classes. In hindsight I can confidently identify many young people (mostly boys as two of the schools were for boys only) in the three special schools whose behaviour were similar to the boys in the special school for ASD where I later taught.

My appointment as a SENCO in a mainstream school first brought me into contact with children who have been diagnosed with ASD. My lack of knowledge of ASD at the time made it difficult for me to support teachers who like me did not have the knowledge of ASD and had the children in their classes. The educational psychologist had to come in to advise us. As head of learning support in a school that was asked to establish a provision for children with ASD, I had to be trained to enable me prepare the teachers to accept to teach children with severe ASD who will be going from the ASD provision attached to the school into mainstream lessons. I was also responsible for children with mild ASD symptoms who were not in the provision. However, due to bullying by their peers or the challenges they face in moving round the big school; they spent their breaks and lunchtime with me. I interacted with them and knew their interests and hobbies that were passed on to teachers to develop strategies for teaching them in the classrooms. Teachers felt more confident with this information and most of the pupils passed through the school successfully. One of the parents in a letter to thank the school after the first year of her son wrote:

> "Miss Odunsi's experience of working with children like our son helped
> to settle him in to the school"

So for this particular school the specific contextual factors of teachers' lack of knowledge and attitude towards the young people with ASD were first identified and dealt with by training before the pupils were sent into the classes. Teachers' personalities and abilities were taken into consideration in placing pupils with ASD in their classes. Other problems such as bullying by peers were also dealt with as they arise using the school's behaviour policy.

I am also a parent of a child with mild autism who attended mainstream schools until she completed her GCSE exams. My experience of the support she received that enabled her to cope with the challenges she faced motivated me to study ASD at Master's degree level. The annual reviews of her SEN statement and transition meetings with teachers and SENCO revealed the importance of the teachers' knowledge and attitude to the progress made by my daughter in school. The meetings with

teachers and the external professionals also helped me as a parent to understand characteristics of young people with ASD and what I could do at home to help her cope with the challenges she experienced at school and in social situations such as family gatherings.

1.5 Rationale for the research

In systems worldwide, there is gradually emerging body of knowledge regarding ASD while in some regions of the world there is paucity in knowledge. This is especially true in countries which do not have the benefit of a high gross domestic product (GDP) or which are faced with other developmental barriers as in many countries in Sub-Saharan Africa.

The community in which a school is situated can influence what goes on in the school as all members including teachers and education staff has similar beliefs and values originating from their culture. Consequently, this research sought to identify the impact of the knowledge and attitude of the people in the community who are around a child with ASD and other mechanisms unique to this context that can constrain or enable the practice of the inclusive education policy. From the literature review the lack of research into the practice of inclusive education for young people with ASD in particular in mainstream schools in Nigeria was revealed. This research attempted to fill some of that gap by exploring inclusive education for young people with mild ASD who are likely to attend mainstream schools in the country as a case study of young people with mild symptoms of SEND. Since the Nigerian national education policy (National policy on Education, 2004; 2008) proposed inclusive education for all children regardless of disability, gender, ethnicity, socio-economic status and religion, it was assumed that this is the practice in all government mainstream schools.

ASD is sometimes referred to as a "hidden disability" because there are no physical features on people with the condition that can be used to identify them. They are identified by their behaviour that sometimes may be masked by comorbid conditions such as ADHD. In Nigeria studies have revealed that there is low level of awareness and knowledge of ASD in the general populace (Bakare *et al.*, 2009; Igwe *et al.,* 2010 Bello-Mojeed *et al.*, 2011). Only the very severe cases most without speech are seen by medical professionals and diagnosed (Bakare & Munir, 2011). After diagnosis, due to the severity of the condition most of the children don't attend schools. They are either locked up at home or kept in psychiatric hospitals or special schools. The medical professionals and public schools rarely work together to meet the needs of the children with ASD.

Teachers are the first professionals that these children are likely to come across outside their homes. Yet low level of awareness of ASD was found among primary school teachers in the town of Yenagoa in Bayelsa State of Nigeria (Ni & Cu, 2015). Teachers in mainstream schools often complain about the challenges of behaviour management in classrooms (Personal communication during training of

teachers in Nigeria). The identification of the children with mild ASD in mainstream school will be a 'sign post' for the teachers (Jordan, 1999). Teachers without the awareness and knowledge of the condition may not be able to manage the behaviour of the young people with ASD and this may lead to the exclusion of the child from the school as it often happens even here in the UK. This thesis should raise the level of awareness of ASD amongst mainstream school teachers in Nigeria and especially of those young people with mild ASD who may not have learning difficulties.

In Nigeria as a whole, there is high dropout rate of children from school and failures at the public examinations which cannot be explained. Literature review has revealed that without appropriate intervention for children with special educational needs, they will struggle to achieve their potential and may give up on school.

The teacher's knowledge of ASD can change their cultural beliefs and negative to disability in general. The teacher can influence the behaviour of the children without disabilities towards their peers with disability. This can in turn influence their community so that gradually the deep-seated cultural beliefs about disability can be changed as children with ASD are seen to achieve educationally.

Inclusive education is about provision of good quality education for all children by removing barriers to their learning and participation in the school activities. Good practice for a group of such children with ASD will lead to good practice for all children eventually. The gaining of insight into teachers' attitudes to young people with ASD will significantly impact on their capacity to understand and therefore more effectively include these young people. My own experience as a parent, teacher and SENCO also motivated this desire to explore the situation in Nigeria and identify the mechanisms that are constraining the effective implementation of the policy.

1.6 Research context

The research participants are all based in Lagos state, Nigeria. The quantitative data were collected in late 2013 while the qualitative data was collected in 2016. Although the government changed in Lagos state, however the practice of inclusive education did not change. The inclusive education policy in Lagos state was formulated with the support of stakeholders and published in 2015 nevertheless, the implementation has not started. The Federal government of Nigeria also formulated and published for the first time a separate National policy on special needs education in Nigeria in the same year. The mainstream schools are from the urban and rural areas of the state to enable the comparison of the level of knowledge of ASD among teachers across the state. The young people in the primary schools are of varying ages due to the universal basic education (UBE) policy that forced parents to send their children to school regardless of their age. Young people up to 19 years of age who have never attended school are allowed to register at primary schools. The key

professionals around the young person with ASD include people working in the local education authority and private sector such as the speech therapist and non-governmental organisation.

My expectations of this research is that the mechanisms that are constraining the practice of inclusive education in Nigeria will be identified and the change necessary recommended to the policy makers.

1.7 Conceptualisation of the key words and phrases

The key words identified for this study are knowledge and attitude (causal powers), practice, mechanisms (factors) and context as well as young person with ASD and parents. The use of these key words and phrases in the thesis are explained here for their meaning in this context.

1.7.1 Knowledge

Knowledge is defined as the information or understanding that the professionals including the teachers and parents have on inclusive education and ASD. The teachers and the professionals under study are likely to gain their knowledge through education and experience including the media for example films on children with ASD. The celebration of April as autism month worldwide including Nigeria is raising a lot of awareness of the condition.

The knowledge here is conceptualised as knowledge of practice of inclusive education and Autism spectrum disorders by the people around the young person with ASD. The knowledge of ASD should give insights into what constitutes barriers to the learning and participation of young people with the condition in mainstream schools.

1.7.2 Attitude

In social psychology, attitude is defined as 'a subjective or mental preparation for action.' Attitudes are rooted in experience and have three parts, cognitive, affective and conative or behavioural. Cognitive component deals with the knowledge of the attitude object, affective is about feelings towards the object and conative is the behaviour towards the object (Vaz *et al*., 2015). Norwich (1994) cited in Avramidis and Norwich (2002) argued that the beliefs and attitudes of teachers are very vital for the success of the practice of inclusive education. These beliefs and attitudes are routed in their culture. The teachers' commitment to implement the inclusive education policy depends on their acceptance of it.

"Culture is often defined as a group of people's way of life, consisting of predictable patterns of values, beliefs, attitudes and behaviours. The patterns are learned and passed from generation to generation."

(Kakai, Maskarinec, Shumay, 2003)

1.7.3 Practice

This study 'defined inclusive practice as involving attempts to overcome barriers to the participation and learning of students' (Ainscow, 2005). This should be achieved by effective implementation of the inclusive education policy. The teachers in the classrooms and other professional agencies inside and outside the school who provide the necessary advice as well as material and human resources when available are included in the practice.

1.7.4 Mechanisms

Mechanisms are viewed as "ways in which structured entities by means of their powers and liabilities act and cause particular events." (Easton, 2010) While in some conditions same mechanisms may create different events and on the other hand different causes my produce the same type of event.

In the *World Health Report on Disability* (2011), the impact of the knowledge and attitude of service providers on the interventions for people with disability was acknowledged. In the case of education, the teachers are the ones whose knowledge and attitude are most important as they are the ones who interact with the children face to face in the classroom. They may be the first professionals that the young people will meet and the effectiveness of inclusive education depend on the quality of their teaching (Mcleskey, 2014). However, the teachers themselves are structures inside structures that have causal powers to constrain or enable the teacher's practice. The involvement of the other professionals might depend on the teacher's decision to refer the child where there is a referral system as in the UK.

My knowledge from previous study (Odunsi, 2012), experience as a parent and educational professional (SENCO) and classroom teacher in mainstream schools) of children with mild symptoms of ASD in the UK gave me the insight into the importance of the knowledge and attitude of the teachers to the inclusive education of young people with mild symptoms of ASD in mainstream schools.

1.7.5 Context

The context in which this research is taking place is very important to understand inclusive education and the effect of the contextual factors on the outcome of the process. The context in this study is where the mainstream schools are situated; that is in Lagos state, Nigeria (chapter 2). The open system of the classroom is made up of teachers and pupils as well other adults who may be employed as carers for children needing personal care. All these individuals are embedded in social systems that may influence them and they in turn may influence people in the social system surrounding them. The teachers and headteachers in the schools are guided by the local authority through the SUBEB that is in turn guided by the state and national policies as well as NGOs where accessible. The National government in the National education policy (2004, 2008) recommended inclusion without guidelines or framework for the schools to use (Uba & Nwoga, 2016).

1.7.6 Young person with ASD

The young person in this thesis is a child from the age of five when they can start at a government school to age of nineteen. Parents were forced by law in Lagos State to send all young people to school including those who have never attended school and are over the age for compulsory education. They all had to start in primary school no matter their age.

The research set out to explore the experience of a young person with mild symptoms of ASD in a mainstream primary school, however this was not possible because of the level of knowledge of the teachers. The child that was identified at the school displayed severe symptoms of ASD and has been diagnosed by the medical professionals.

1.7.7 Parents

Parents in this thesis can be biological parents, adoptive parents, carer givers and people given parental roles by courts. This is very relevant to Nigeria as children are often placed with relatives in the extended family to look after for various reasons including the inability of birth parents to look after their children due to illness or poverty.

1.8 Structure of the thesis

This thesis is made up of seven chapters as follows:

The present introductory chapter provides an overview of the thesis by covering the background to the research to be undertaken notably by coverage of the key issues, rationale, research boundaries and the research questions. The methodology and the approach to answer the questions as well as data collection and analysis are also briefly summarised in this chapter, although this is to form a free-standing, substantive item later in the chapter sequence. My positionality and the rationale for the research are explained along with my expectations of the research and the boundaries of the research.

The literature review is divided into two chapters, addressing first inclusive education and subsequently autism spectrum disorders (ASD). The historical context of the practice of inclusive education globally, nationally (within Nigeria) and locally is very crucial to understanding the different contextual factors in the countries of the world. In Nigeria a lot of articles have been written and some research has been done on inclusive education but very little has been written on ASD in Nigeria and no research into education of children with ASD. The management of ASD that includes the identification and interventions for the condition as well as the effective practice in mainstream schools makes it necessary to have a separate chapter for it.

Chapter 2 comprises literature review of inclusive education (IE) and starts with the interpretations and history of inclusive education from special educational needs (SEN) and the models of disability. The tensions and dilemmas surrounding the practice of IE were explained. International practice of IE in developed countries of USA, New Zealand, Europe and UK in particular were discussed while the situation in developing countries of sub-Sahara Africa including Nigeria is also considered. The roles of the different stakeholders involved in the practice of inclusive education at the different levels of the social systems around the young person with ASD were analysed. Finally the challenges in the formulation and implementation of the IE policy in Nigeria were identified and discussed.

Chapter 3 focus on young people with ASD in particular. This is an overview of ASD recognising the barriers to the learning and participation of children with mild ASD in mainstream schools. The management of young people with ASD including the identification, diagnosis and interventions as

well as co-morbid conditions were discussed. International research on the education of children with mild ASD, the focus of the research in mainstream schools is explored. The internal and external factors that could influence the inclusive education of children with ASD in schools are investigated. The impact of the knowledge and attitude of people around the young people with ASD is explained.

Chapter 4 is the methodology chapter that presents and justifies the approach and methods used in the study. From the literature reviews, the gap in knowledge of inclusive education particularly for young people with ASD and the variables and mechanisms in the specific context at the different level of the social system that I need to investigate were identified. The approach to the research including the philosophically assumptions of critical realism and the choice of the paradigm and research design of case study method for data collection and data analysis are explained.

Chapter 5 describes the findings and analysis of the data collected according to the research questions and the tools engaged in data collection. The findings of the quantitative study is analysed separately from the findings of the qualitative study.

Chapter 6 discusses the two sets of data collected and analysed above separately are synthesised including official documents from Nigeria. The level of knowledge among the teachers and the relationship to the demographic factors is discussed. The knowledge, attitude and practice of the key people around the child with ASD in mainstream school is recognised and used in recommendation for future research in this field.

Chapter 7 covers the concluding remarks and the future work arising from the research is presented from the consideration of the key issues and answers to the research questions.

Summary

In this introductory chapter the background and the key issues of the research along with the rationale for the research are presented. The focus of the research, research questions, context and methodology of the research are introduced along with the conceptualisation of the key words. In the next chapter the literature and research surrounding the practice of inclusive education globally, nationally and locally in Lagos state are reviewed. The next two chapters present a literature review comprising, two interrelated sections as stated above.

Chapter 2: Literature review (i) Inclusive Education

2.1 Introduction

In any context in which inclusive education is practised, there are mechanisms unique to that context that can impact the outcome. Inclusive education in schools starts with the teacher who teaches in the classroom and interacts face to face with all children including those with special educational needs and Disabilities (SEND). The school and the whole education system can be influenced by the other stakeholders such as parents and external professionals who work with schools. Their influence can either enable or constrain the process of inclusive education. The influence of all the stakeholders in the different social systems is bidirectional (Fig 1.1 page 6). Consequently the child in the classroom and at home can influence the parent and teacher from their interaction in the child's microsystem and their knowledge of ASD increases while responding to the child's learning needs. The teacher in turn can influence the headteacher and others in the school that are in the mesosystem. The individuals in the child's exosystem can also be influenced and they in turn can influence the people at the macrosystem level. The direction of influence can also start from the macrosystem that is the national level to the exosytem and next to the mesosystem and finally to the microsystem in the classroom and home. The impact of the individuals at these different social systems comes from their knowledge of the SEND condition which in turn can impact their attitude which can impact their practice of inclusive education.

There is a now a significant body of literature concerning theory and practice relating to, inclusive education internationally (see for example (Ainscow, 2005; Thomas, 2013); and an increasing range of work that refers nationally and locally to Nigeria and Lagos state (Adebisi, Jerry, Rasaki, Igwe, 2014). However, the education of people with ASD in Nigeria is still under researched and most of the literature and research are from North America, European countries and other developed or high-income countries like Australia. In order to know what effective inclusive education for a young person with ASD means and strategies needed to achieve it in mainstream schools, the study of the condition and its management are important especially educational interventions. The knowledge and understanding of the characteristics of people with ASD allows the identification of the mechanisms that can constrain or enable inclusive education. Hence the need for the literature reviews to cover all aspects of both inclusive education and ASD.

The organisation of this part of the literature review is undertaken as follows: Firstly special educational needs and disability (SEND) are presented as they were the terms used before inclusive

education. The definition and introduction of the term lead on to the different models of disability and the attitudes of societies to disability. Secondly inclusive education and its different interpretations were presented. The social systems in which inclusive education practice is embedded and the impact of the individuals in the various levels of the system is considered. Starting with the parents and educations placements they choose to place their children. Thirdly, the school structures and systems as well as all the people in school and outside school that can impact what is going on in the school is discussed. Fourthly the tensions and dilemmas of inclusive education is identified. Finally the practice of inclusive education globally, in developed and developing countries are presented. The development of educational system in Nigeria and the provision for people with SEND including the introduction of inclusive education into the National education policy with the mechanisms that impact the practice is analysed.

2.2 Special Educational Needs and Disability (SEND)

Special educational needs are used to define the needs of children who have difficulties or disabilities that prevents them from learning as fast as the other children of their age. 'A child or young person has SEN if they have a learning difficulty or disability which calls for special educational provision to be made for him or her.' (SEN code of practice, 2001, 2015). SEN began to replace terms such as handicap from the 1970s. In the 1970s and 1980s in Europe and USA laws were introduced about the education of children with SEN giving them access to free and suitable public education.

The Education act of 1981 in the UK introduced the term special educational needs (SEN) from the recommendation of the Warnock committee 'to move away from deficit categories; with the explicit aim to turn away from what the child or young person could not do to what was required positively to provide appropriate learning opportunities.' (Mittler, 2001 Norwich 2013). SEN is defined as 'learning difficulty that calls for special educational provision' and learning difficulty is defined as greater difficulty in learning or a disability that does not allow use of educational facilities (Norwich, 2008). The term SEN was used to replace previous negative categories such as educational sub-normality and handicap with less negative words such as moderate learning difficulties. In England SEN were identified first at five levels then reduced to three levels depending on the additional provision needed: 'School action and School action plus (with support from local authority) that are decided by professional from schools.' The third level that results in the issue of a statement of SEN covers individual educational needs and provision (DfES, 2002). The SEN code of practice (DfEE, 1994) was introduced to schools to promote whole-schools policies for other children with SEN who are without statements. Since then the Code of practice has been reviewed and published in 2014 and 2015 to address the educational needs of young people up to age 25 years. The education, health and care plan was introduced in the new code of practice and has replaced the previous statement of

special educational needs in the 1994 version. There were tensions in schools and local authority between the market-style schooling of inclusion agenda and raising education standards. The nature and level of inclusion as well as the concept of SEN continue to be a cause for concern in the UK (MacBeath et al., 2006).

The concept of SEN was perceived as negative by indicating that some people are different and undervalues them (Norwich, 2013). Mittler (2001) suggested that SEN should be reconceptualised as 'poverty, marginalisation and social exclusion' negatively affect children's learning. Therefore, the expansion of SEN was seen as positive, by including both disabled and non-disabled children and focusing on the individual educational needs. Inclusive education policy originated from special education (Thomas, 2013).

2.3 Disability

From the previous section, people with disabilities are now included in the inclusive education agenda. This section will discuss disability and the different models of disability as well as the approach to the management of the people that are disabled.

WHO (2011) described disability as:

"the umbrella term for impairments, activity limitations and participation restrictions, referring to the negative aspects of the interaction between an individual (with a health condition) and that individual's contextual factors (environmental and personal factors)".

(WHO, 2011 p. 4)

The above report acknowledges the impact of the environment on a person with disability as well as the policies and rules of the service provision. Furthermore, the report proposed that 'knowledge and attitudes are important environmental factors, affecting all areas of service provision and social life.' WHO (2010) used the term "students with disabilities" for students with 'sensory, communications, motor and learning disabilities and behaviour disorders.' This applies in this study.

2.3.1 Models of disability

Disabilities can be viewed from the medical, social and cultural models that influence the provision of interventions for the people with disabilities. The medical model of disability considers the individual with their impairments and difficulties as the source of their learning difficulties instead of the social systems. The disabled people are perceived as the problem that needs to change to fit the circumstances if possible. The medical model is criticised for the influence of the medical

professionals in the intervention and provision for people with disabilities. The model is also criticised for the focus on 'within-child' factors without considering the impact of the environment (Lindsay, 2003).

In contrast the social model developed by disabled people themselves considers disability as resulting from the barriers within the society (Open University, 2006) and is in harmony with inclusive education. The social model in the UK has been criticised for defining disability as oppressive while the campaign internationally for social model of disability is against exclusion and policies that are oppressive (Norwich, 2013). Lindsay (2003) argued that the social model as is frequently presented is 'illogical and unhelpful.' He argued that the needs of the children including their strengths and weaknesses as well as the nature of their environment should be considered. Hence he suggested the compensatory interactive model initiated by Klaus Wedell (1978) that links the interaction of within-child factors, environment and later time (Lindsay, 2003).

The *International Classification of Functioning, Disability and Health* (ICF) (17) that was developed by academics, clinicians and persons with disabilities stressed that environmental factors created disabilities in contrast to the previous International Classification of Impairments, Disabilities, and Handicaps (CIDH) (WHO, 2001). The ICF considers disability as a continuum and does not put people with a disability in a separate category. A new model; "bio-psycho-social model" was proposed as a compromise between health and social models. Thomas (2013) suggested a move from the one component view of disability to one that considers 'community, social equality and respect.'

Cultural beliefs about disability in general can influence the way it is defined and identified (Rogers-Adkinson *et al.,* 2003). Health conditions in general can be defined culturally as absolute, relative or universal. The culture that defines health condition as absolute accepts that culture plays no part in the display of the symptoms and believes that it is the same in all contexts. The culturally relative views psychological health conditions and treatment as dependent on the culture in which it is displayed. The culturally universal believes that psychological health conditions are the same in all cultures but the development and display of the condition is culturally dependent.

The education of children with any form of disability is culturally dependent. While in some cultures, all children regardless of disabilities have a right to access education in others the right to education is compromised by the availability of resources. The limited resources are initially allocated to nondisabled children before the disabled are given any consideration (Ravindran & Myers, 2012). The education, assessments and treatments of children with disabilities are affected by the funding allocated to them even in countries where all children are being given the right to education (Shattuck & Grosse 2007). The perception of disability within the different societies in Africa including Nigeria is negative and their treatment too is based on the misunderstanding of their conditions (Eskay, eskay, Uma, 2012).

2.3.2 Attitude of the Society to disabilities

The UN Committee on the Rights of the child (UNCRC, 2005) reported the pervasiveness of discrimination 'against children with disabilities both within the family and within society in general in Nigeria.' Some of the children with disabilities may also have the stigma of being identified as witches and be denied the right to education (Secker, 2012). However, due to the belief and expectations of the society that all adults must contribute to the upbringing of all children, the negative views of the children with disabilities did not stop the adults from caring for them. Since the goal of the traditional education to '"enhance" education of the body, mind, and soul should shape the child to fit into the society not the society to fit the child (Eskay et al., 2012).

The local culture does not have good attitude towards disabilities due to the unscientific explanations for the conditions. There are lots of superstitions about causes of disabilities in children that lead to fears and myths. This generates misunderstanding and affects interactions with such children. Parents and family members are often ashamed and feel their child with disability may 'tarnish their image.' Research in Nigeria into the effects of stigma on parents' choice regarding their children with SEN found that their perception of stigma directed towards children with SEN influence the educational decision for their children (Uba and Nwoga, 2016). The lack of awareness and knowledge of special education resulted in the view that children with disabilities are not educable. The focus on reducing the level of illiteracy among children and adults has also diverted attention away from special educational needs (Garuba, 2003). Ajuwon (2012) found that teachers were not confident of their ability to manage the behaviour of their students which may have negative impact on the outcome of the inclusions (Avramidis, *et al.*, 2000).

2.4. Inclusive Education.

Having established that all people with disabilities now have a right to education through the process of Inclusive education, this section will discuss the concept of inclusive education as there is no agreed definition (McLeskey, 2014). The international initiatives of "Education For All" (EFA) which was ratified by 152 countries in 1990 and the Salamanca statement and frame work for action on special needs education of 1994 agreed by 92 countries and 25 international organisations; are about education of all children (Peters, 2007). However while EFA is about quantity, the Salamanca statement on inclusive education is about quality (Ainscow, 2005). In the various parts of the world, children are not attending school for different reasons; ranging from 'high levels of mobility, social conflict, child labour and exploitation, poverty, gender and disability.' (Rouse, 2008)

"About 263 million children and youth are out of school, according to new data from the UNESCO Institute for Statistics (UIS). This is equivalent to a quarter of the population of Europe. The total includes 61 million children of primary school age, 60 million of lower secondary school age, and includes the first ever estimate of those of upper secondary school age at 142 million. Of all the regions, sub-Saharan Africa has the highest rates of exclusion. Over a fifth of children between the ages of 6-11 are out of school, followed by a third of youth between the ages of 12-14. According to UIS data, almost 60% of youth between the ages of 15-17 are not in school. "

(UNESCO, 2016)

In the developed Western world of UK and USA thousands of young people leave education with no qualification due to 'failure' of the education systems while in the developing world of the south like Nigeria it is due to lack of access to education for all children (Armstrong *et al.*,2011). Therefore while inclusive education in the high-income developed countries like UK might involve the provision of quality education for all children, in the low-and middle-income developing countries it is about access to education in the first place. (Ainscow *et al.,* 2006)

2.4.1. Interpretations of inclusive education

The *Education for All* (EFA) initiative from the World Conference on Education in Jomtien, Thailand in 1990 acknowledged the exclusion of some marginalised and vulnerable children from education systems all over the world. The commitment of countries to EFA should enable every child and adult obtain decent basic education. Lindqvist (2002) who has a disability argued that as citizens of their various countries, people with disabilities are 'entitled to full participation and equal rights.' The Thailand conference led to the thought of inclusive education although the concept was not mentioned then (Miles & Singal, 2010). The failure of some governments to include children with disability in the EFA initiative led to the Salamanca conference to rectify the situation (Mittler, 2005).

The Salamanca Statement (UNESCO, 1994) on the concept of inclusive education stated that:

Every child has a fundamental right to education, and must be given this opportunity to achieve and maintain an acceptable level of learning,

Every child has unique characteristics, interests, abilities and learning needs

Education systems should be designed and educational programmes implemented to take into account the wide diversity of these characteristics and needs

Those with special educational needs must have access to regular schools which should accommodate them within a child-centred pedagogy capable of meeting these needs

Regular schools with this inclusive orientation are the most effective means of combating discriminatory attitudes, creating welcoming communities, building an inclusive society and achieving education for all; moreover, they provide an effective education to the majority of children and improve the efficiency and ultimately the cost-effectiveness of the entire education system.

All governments were urged to "adopt as a matter of law or policy the principle of inclusive education, enrolling all children in regular schools, unless there are compelling reasons for doing otherwise." (UNESCO, 1994) Nigeria was one of the countries that signed up for this initiative. The initiative was accompanied by framework for action to 'inform policy and guide actions by governments.'

> "It evidently cannot take account of the vast variety of situations encountered in the different regions and countries of the world and must, accordingly, be adapted to fit local requirements and circumstances. To be effective, it must be complemented by national, regional and local plans of action inspired by a political and popular will to achieve education for all."

> (UNESCO, 1994)

The Salamanca statement suggested a paradigm shift in development of schools through moves in the direction of inclusion. People in schools should develop practices that can "reach out to all learners." (Ainscow, 2005) Ainscow (2005) went on to argue that the aim of inclusive education should be the elimination of social exclusion that is a 'consequence of attitudes and responses to diversity in race, social class, ethnicity, religion, gender and ability.'

The different meanings of the term "inclusive education" across the world have resulted in different suggestions about the use of the term. Mitchell (2005) had sixteen propositions while Ainscow *et al.* (2006) from analysis of international studies of inclusive education suggested five different views on inclusion

Inclusion as concerned with disability and 'special educational needs (SEN)'

Inclusion as a response to disciplinary exclusion.

Inclusion as about vulnerable to exclusion.

Inclusion as developing school for all

Inclusion as 'Education for All'

These different perspectives of inclusion affect the formulation of policies and practice all over the world. While in some countries, inclusive education is perceived as a practice of meeting the needs of children with disabilities within mainstream schools; globally it is gaining recognition as a 'reform that supports and welcomes diversity amongst all learners.' (UNESCO, 2001)

> "Inclusion is about all pupils, not just a few. It involves changing the culture and organisation of the school to ensure access and participation for all pupils currently in the school and for others who are now in segregated provision but who may be joining the school at some time in the future."

> (Mittler, 2000 p. 177)

The above concept of inclusive education as a process that should transform schools and allow access and participation of all learners is assumed in this study. It concerns young people with disability and SEN in mainstream schools. For this research, inclusive education is the education of children and young people with disabilities in mainstream schools with their peers that are not disabled (Peters, 2002; 2007). It is assumed that inclusive education is a process of growth as suggested by Ainscow (Corbett & Slee, 2000). I also agree with Booth (2000) and (Ainscow, 2005) that it is a process of identifying and removing barriers to learning and participation for all learners including those with disabilities as well as about their 'presence participation and achievement.'

Since inclusive education is a process, then the starting point must be exploration of the present situation in the schools for as argued by Ainscow and Sandill (2010) that:

> "Schools and their communities know more than they use and that the logical starting point for inclusive development is with detailed analysis of the existing arrangement. This allows good practices to be identified and shared, whilst, at the same time drawing attention to ways of working that may be creating barriers to participation and learning of some students."

> (Ainscow and Sandhill, 2010 p. 412)

The exploration should involve the collection of agreed evidence from an agreed definition of what inclusion is so that at all levels the required evidence is collected. Ainscow (2005) argued that an example of this is the collection of evidence at district level for all students that is linked to "presence, participation and achievement."

On the other hand Warnock (2005) traced the history of the provision for children with SEN in the UK and in her critique of the issue of inclusion, she concluded that there is need to rethink and redefine inclusive education. This she argued will give children with SEN access to 'common educational

enterprise of learning, wherever they can learn best.' Norwich (2010) suggested a 'continuum of provision for children with SEN' that involves the location of special schools on the same site as mainstream schools. Warnock suggested that there will always be need for special schools as the only option or the best school for some children with SEN. (Hornby, 2012)

O'Rouke (2015) suggested that in today's society all citizens are mostly consumers and they all have a role to play:

> "Students and parents may be consumers of inclusive education services; whereas classroom teachers and school administration are consumers of philosophies, ideas, products and methodologies surrounding inclusive practice."

As consumers they have a choice and the choice of inclusive education by classroom teachers and school administrators is made difficulty by the need to change the way of doing things and the community to change way of thinking. This is why it is difficult to for inclusive education to be accepted and practiced in many schools all over the world and teachers are pivotal to the resistance.

2.4.2 Inclusive education and social systems

Having established the concept of inclusive education in this research, the factors in the schools and social systems in which they are embedded that can influence the process of growth or development of inclusive education will now be considered because schools are replication of the society. There are contextual factors within schools and outside schools that can influence the practice of inclusive education.

> "One thing is clear: schools and the education system do not function in isolation. What happens in schools is a reflection of the society in which schools function. A society's values, beliefs and priorities will permeate the life and work of schools and do not stop at the school gates. Those who work in schools are citizens of their society and local community, with the same range of beliefs and attitudes as any other group of people; so are those who administer the wider education system, including appointed and elected members of local government, school governors or professional administrators."

> (Mittler, 2000 p.1).

The relationship between the various social systems in which inclusive education is embedded need careful consideration (Sayed et al., 2003). Mitchell (2005) suggested that in any one particular country or local authority "characterization, purpose and form of inclusive education reflect the

relationships among the social, political, economic, cultural and historical contexts." Obiakor et al. (2012) argued that the collaboration and deliberations of all stakeholders is necessary for the success of inclusive education. These 'stakeholders within the local community should include leaders in politics and religion as well as the media. Since there are 'factors within schools that influence the development of thinking and practice, as well as wider contextual factors that may constrain such developments' (Ainscow 2005); it is therefore necessary to consider all these factors in the process of inclusive education.

2.4.3 Parents

The major role of parents in the education of their children has been recognised and there are guidelines to ensure the active involvement of the parents in the inclusive education of their children. In the USA, The Individuals with Disabilities Education Act Amendments (US Congress, 1977) established the rights of parents to be involved in their children's education. Research in the USA into the perception of parents (437) of issues linked to inclusive education found that they strongly support the concept from a legal and philosophical viewpoint. The parents recognised the benefits for their children of social and affective outcomes. They also acknowledged the fact that their children's peers are likely to accept and be sensitive to other children's differences. On the other hand, there were concerns by some parents about the impact of inclusion on the emotional and social life of their children. The ability of the general class teachers to teach the children with SEN effectively like the special education teachers were also a source of concern for the parents. The parents of children with mild disabilities were more supportive of inclusive education compared to the parents of children with more severe disabilities (Leyser and Kirk, 2004).

The various factors that influence parents' perception of inclusive education were also revealed. The parental educational level and occupation were found to influence their attitudes towards inclusive education. Parents with college (higher) perceive inclusive education as beneficial to their children compared to parents with lower level of education (Leyser & Kirk, 2004). Although this research was only carried out in one state in USA and the response was low but the findings of the research can be used for research to study the factors that may influence parents' perception of and attitude towards inclusive education. In the UK, Knill and Humphreys (1966) found that parents of children in mainstream school were less supportive of inclusion compared to parents of children in special schools. A survey of parents (n=562) of children with "learning difficulties and disabilities" in Great Britain from England, Wales and Scotland revealed that the parents have a positive view and experience of educational provision. The parents felt that the disability legislation had a positive influence as the schools their children attended were chosen by them and there was no discrimination against their child in terms of access to buildings and activities. While parents of

children in special schools were most satisfied, parents of children with difficulties in mainstream schools were least satisfied. The parental views and judgements may be due to the significant differences in the children in special schools compared to children in mainstream schools. (Parsons *et al.*, 2009)

Bagley and Woods (1998) found that middle-class parents choose schools by visiting and they argued that:

> "Findings broadly support the notion that competence as a consumer amongst
> parents of SEN students can to a certain extent be differentiated by social class;
> middleclass parents possessing the cultural, social and financial resources,
> which enable them to engage with greater awareness and understanding with
> the public-maker"

> *(p.776)*

A literature review of journals (education, special education, disability and educational psychology journals) from 1981-2011 found factors that influence the decision-making of parents of children with SEN when choosing secondary educational provision for their child from primary schools in the UK, Australia and USA. The child's age and the nature and severity of their SEN as well as the parent's socio-economic status influence the decision of the parents. Also, the parents' beliefs and views about the teachers' commitment to SEN, knowledge, and attitudes as well family and professionals influence the parents' decision (Byrne, 2013).

2.4.4 Placement

Parents have to decide on where their children with SEND will be educated so placement is another facet of inclusive education. Inclusive education is perceived by many scholars as the placement of students in mainstream schools and classrooms regardless of their ability. (Luciak & Biewer, 2011 cited in Mitchell, 2015) The two types of mainstreaming are full-time in the classrooms or part-time in classroom and in units attached to schools.

2.4.5 School structures and systems in inclusive education

"Such an environment must be inclusive of children, effective with children, friendly and welcoming to children, healthy and protective for children and gender sensitive." (UNESCO, 2005) The framework given to countries at Salamanca for the development of inclusive neighbourhood schools exposed a variety of contextual influences within schools that may provide support or act as barriers to individuals who desire to move in inclusive direction. (Ainscow 1999) A research was carried out

over ten years after the Salamanca statement in UK and with projects focused on classroom practice in different parts of the world (Brazil, China, India, Romania, Spain and Zambia) to determine the framework for identifying levers that make the process of inclusive education easy. The research found that the neighbourhood schools need to be equipped to accommodate all learners as proposed by the Salamanca statement. The transformation requires actions of 'levers for change' that can change how people and the organisation in which they exist behave. (Ainscow & Sandill, 2010) The possible low level levers identified in schools are policy documents and in service-courses that could make the process appear good without significant change, however there are high level levers can bring significant changes by influencing existing ways of thinking and practice. (Senge, 1998; cited in Ainscow, 2005).

2.4.6 Teachers in inclusive education

The role of teachers in schools has been found to be very crucial in the success or failure of inclusive education in schools (Forlin & Chambers, 2011). The lack of training of classroom teachers resulting in lack of knowledge is often suggested as one of the many barriers to inclusion. Research in Australia identified the range of issues that regular teachers find stressful in the inclusion of children with moderate to severe intellectual impairments. The most stressful is the teachers' professional competence of which is their concern about the impact on the majority children without disability in the classroom. The second most stressful issue is the 'behaviour of the child with disability'. The research found that 40% of children with intellectual impairments in mainstream classes in the region of Queensland have physically abused their peers (Forlin, 2001). The qualitative research is limited to a region and there may be other variables in the context responsible for the poor social skills of the children with intellectual disabilities in the mainstream classes. However, an international review of literature emphasised same issues regarding teacher stress. Other stressful issues identified were lack of resources and class size (Chen and Miller, 1997 cited in Forlin 2001). The teaching methods that are effective for pupils with SEN and disabilities are also effective for the pupils without. The strategies used in the practice of teaching were found to be more important than the approaches linked to the types of special educational need (Lewis & Norwich, 2005; Florian, 2008). The teaching methods and practices needed for effective inclusive education can be identified but difficult to implement (Florian, 1998). There is need to change the emphasis from the child's difficulties to the strategies and classroom practices that will improve the learning of all children (Ainscow and Hart, 1992 cited in Rose, 2001).

A small study of primary schools' teachers by Rose (2001) revealed that teachers were 'concerned about their own lack of experience and the skills they would need to accept pupils with SENs into their classrooms.' Florian (2008) argued that teachers lack confidence in the knowledge and skills

they already have to teach all pupils on their own may not be able to change structures of schooling to establish inclusive education but individually they can 'change the way they work in their classrooms even within the constraints of national curricula and systems of assessment.' Teachers need a change in their thinking of the nature of learning difficulties and their responses to barriers to pupils' learning and participation.

Similarly, a research in Canada that covered nearly 20 years found that:

> "teachers' beliefs about disability and their responsibilities for their students with disabilities and special educational needs may be part of a broader set of attitudes and beliefs about the nature of ability and about the nature of knowledge, knowing and how learning proceeds; that is epistemological beliefs."

> (Jordan, Schartz, McGhie-Richmond, 2009, p.535)

The above research also revealed that the enhancement of inclusive practices will benefit all learners because effective inclusion is like effective teaching practices generally.

A recent study of Indian teachers' perceptions and belief systems in the provision of education for young people with disabilities in mainstream classroom found that their 'knowledge of inclusive education was limited.' The teachers did not have a consistent view of inclusion and because of absence of support at the institutional level as well as knowledge of how to implement the policy at classroom level, they disregarded the policy. The perceptions of the teachers is determined by their beliefs and normative practices. The inclusive education of the young people with disabilities in mainstream schools was not supported by the teachers as it was seen as a 'western idea' that is not yet possible in India. (Tiwari, Das, Sharma, 2015)

On the other hand Greek teachers were found to have contradictory attitudes towards inclusive education. They supported inclusive education but they perceive the severity of the child's difficulties and the available resources very crucial to the success of the process. The survey of general education primary school teachers in a region of Northern Greece found that the positive attitudes of the teachers to inclusive education differs from their various views regarding the accommodation of children with different types of disabilities. (Avramidis & Kalyva, 2007)

A three-year study in the UK involving three universities of what needs to happen to develop inclusive practices in schools found that in any particular workplace social learning process can influence people's thinking and the resulting actions.

Wenger (1998) viewed learning as a 'characteristic of practice' and developed the concept of 'community of practice.' A practice was defined as consisting of activities that individuals in a

community engage in with the resources available to them to further a collective set of goals. This includes more than how the practitioners accomplish their tasks to how they deal with the pressures and limitations of their jobs. 'Practices are ways of negotiating meanings through social action' and Wenger suggested that the meanings evolve from processes of "participation" and "reification" that balance each other. The shared meanings in a school characterise a teacher at the particular school because participation is local and shared experiences is different in various settings. Wenger (1998) concluded that:

> "Communities of practice are not intrinsically beneficial of harmful…. Yet they are a force to be reckoned with, for better or worse. As a locus of engagement in action, interpersonal relationships, shared knowledge and negotiation of enterprises such communities hold the key to transformation- the kind that has real effect on people's lives… the influence of other forces (e.g. control of an institution or the authority of an individual) are no less important but…. They are mediated by the communities in which they are negotiated in practice. "

> (p.85)

The social learning from participation should enable teachers working together to develop physical representations of their practices. (Ainscow, 2005)

2.4.7 School leadership in inclusive education

The teachers' activities in developing an effective inclusive schools need the support of a headteacher that is active and strong. (McLeskey & Waldron, 2015) The headteacher or school principal (USA) of schools are very critical in the provision of effective leadership for 'social processes of learning in school'. (Riehl, 2000) From their extensive literature review they reasoned that one of the fundamental practices of an effective leader is the provision of intellectual stimulation to develop people. Riehl concluded that school leaders need to pay attention to three wide ranging tasks: 'fostering new meanings about diversity; promoting inclusive practices in schools; and building connections between schools and communities.' (leithwood & Riehl, 2005; Harris, 2002, 2006)

In a review of case studies of effective inclusive schools in USA and England McLeskey and Waldron (2015) found that that development and sustaining of such schools depend on:

- Strong active principal leadership to ensure that teachers share core values and an institutional commitment to developing an effective inclusive school;
- A data system that monitors student progress; and

- A school-based system of learner-centred professional development to improve instruction.

The educational leadership in the different learners' environments can promote effective 'school quality, equity and social justice through more powerful form of teaching and learning' by building strong communities made up of students, teachers and parents. (Riehl, 2006) The developments within inclusive schools can only be maintained as part of a wider systemic change. Social relationships are very crucial to the leadership role in school improvement and staff relationships can be structured competitively, individualistically or cooperatively. Principals and headteachers can make the most of the productivity of a school by challenging:

> "the traditional competitive and individualistic approaches to teaching; inspire
> a clear mutual vision of what school should and could be; empower staff
> through cooperative team work; lead by example, using cooperative
> procedures and taking risks; and encourage staff members to persist and keep
> striving to improve their expertise."

> (Ainscow and Sandill, 2010 p. 408).

The development of cooperative teams is strongly emphasised by Hopkins (2001) and Johnson and Johnson (1989) within the above complete formulation. School leadership can also be approached from the direction of student achievement or emphasis on meeting individual needs. (Leithwood and Riehl, 2003).

Sandil and Ainscow (2007) argued that factors outside the school at the district or local authority level may influence the much-needed cultural shift at the school leadership level.

2.4.8 Local Authority (LA) role in inclusive education practice

The uniqueness of each national contexts means that the organisation of the education system at the district or LEA level 'in one country cannot be assumed to be similar to that in other countries.' However, the experiences of one country can be useful in considering what happens elsewhere. (Ainscow *et al.*, 2000) From collaborative work with local education authorities (LEAs) in England and other countries factors were found at these district levels that can influence the practice of inclusive education in schools by assisting or hindering the process. The two factors that were found to be 'superordinate' to the others are clear definition of inclusion and evidence that measure performance.

An exploratory work carried out for Department of Education and Employment (DfEE) in the UK with 12 LEAs of different size, geography and experience of inclusive education on factors that may help

to promote policy developments and those that may be possible barriers to progress. The study found that within the LEA there are huge variation of opinions and what they might necessitate. However, they agreed that the LEA's policy must be 'developed through the active engagement of all stake holders'; led by the LEA and 'carefully and systematically managed throughout its implementation. The strategy used in financing SEN was found to be a significant factor in the progress towards inclusive education. The processes and structures of the LEA including the management of change and the movement towards more inclusive education 'involves a complex set of social processes within which those at different level within the service construct their own interpretation of what a particular set of proposals mean'. (Ainscow *et. al.,* 2000) The study also found that there is need for partnerships with parents and other agencies whose priorities and responsibilities may be different. The views of the different agencies about inclusive education may influence the parents' choice of educational placement.

2.4.9 Tensions and dilemmas of inclusive education

In the inclusive education of children with disabilities there are tensions that lead to dilemmas (choice between two unfavourable alternatives) (Norwich, 2013). The tension of participation against protections result in the dilemma of what is referred to as 'plural democracy' (Dahl, 1982). An investigation into how educators perceive dilemmas in different areas of special education was done by interviewing teachers and psychologists in United States of America (USA) and England. This study revealed significant dilemmas in identification, curriculum and location (Norwich, 2008). There are tensions of choice versus equity that comes from the use of market values in school systems. The tension of generic against specialist results in the dilemma of difference (Norwich, 2013).

The dilemma of whether to identify children with learning difficulties which may lead to their being treated differently, stigmatised or not valued like the others. On the other hand, if they are not identified, school resources may not meet their educational needs. Florian (2007) found unacceptable the dilemmas of difference and the idea of 'normal as usual as good' that confront special education and suggested that focus should be on learning for all. Slee (2010) and Allan (2008) rejected compromise as it may result in exclusion or injustice. However, Norwich (2013) argued that their position will leave special education without change. With all these tensions and dilemma about inclusive education, the practice in the different contexts of developed Western world and developing countries may not be subject to same factors. (Srivastava *et al*., 2015)

The concept of SEN was perceived as negative by indicating that some people are different and undervalues them (Norwich, 2013). Mittler (2001) suggested that SEN should be reconceptualised as 'poverty, marginalisation and social exclusion' negatively affect children's learning. Therefore, the expansion of SEN was seen as positive, by including both disabled and non-disabled children and

focusing on the individual educational needs. The practice of inclusive education as recommended by the Salamanca statement for all countries should meet the educational needs of all children.

2.5 Inclusive education globally

The *United Nations Convention on the Rights of Persons with Disabilities* (UNCRPD) recommended inclusive education for all people with disabilities at all levels with equal opportunity and no discrimination (UNICEF, 2008). Inclusive education is perceived self-evidently as a 'good thing' like democracy and human rights. (Fagan, 2005 cited in Norwich, 2013) The conceptualisation of inclusion by education includes four key parts. Firstly, inclusion is perceived as a process of learning to accommodate diversity. Secondly, inclusion involves 'identification and removal of barriers'. Thirdly, inclusion covers the place, attendance and learning of all children and finally, inclusion places emphasis on children 'at risk of marginalisation, exclusion and or underachievement.' Negative attitude and discrimination that can be barriers to learning are eliminated by the process of inclusion (UNESCO, 2005).

The original intention of Inclusive education was to 'promote system and organisational change' in education. However, the initiatives for people with disabilities tend to weaken and divert attention away from this goal (Miles & Singal, 2010). Inclusive education can be viewed as a philosophy and practice grounded on specific theories of teaching and learning that advocates that all individuals should have equal opportunity to quality education (Peters, 2007). In the developed countries, this may be a 'process of increasing participation and decreasing exclusion' (Booth and Ainscow, 2002) or 'an approach to education embodying values' (Ainscow *et al*., 2006). The gap between the philosophy of inclusive education and the reality of the practice of inclusion were well-known by several researchers (Croll & Moses 2000, cited in Leyser and Kirk 2004).

Consequently, Hornby (2012) argued that both developed and developing countries need a policy of 'inclusive special education.' The policy should acknowledge the provision of appropriate education for all children with SEND 'within the education system with the majority in mainstream schools.' This should involve the organisation of mainstream schools to enable them provide effective education for the various children with SEND either in mainstream classrooms or special classes for small numbers of them or units attached to the school. The special schools that will be needed for the learners with severe SEND should be on the same site as the mainstream schools to allow 'close collaboration between mainstream and special schools.' Norwich (2010) suggested a "continuum of provision for children with SEN" for this type of arrangement.

2.5.1 Inclusive education in developed countries

In the developed countries (International monetary fund), the inclusive education of children with special educational needs and disabilities was backed by research, legislations, funds and frameworks to guide the implementation of the policies. The practice of inclusive education in Western countries focused on partnership between special schools and mainstream schools (Frederickson *et al*., 2004; Rose and Coles, 2002), work of special needs coordinator (Coles, 2005), teachers' attitude and training as well as inclusive pedagogies. (Florian and Linklater, 2010) The three wide groups of contextual factors present in the process of the formulation and implementation of inclusive education policy are external (legislation/ policy, regulations and funding), school (structure and systems of providing services) and teacher (knowledge and skills, attitude and available time for teaching) (Pijl and Meijer cited in Srivastava *et al.,* 2015).

In the European context, the values linked to inclusion are '1) access and quality. 2) Equity and social justice, 3) democratic values and participation and 4) the balance between unity and diversity.' (Norwich, 2013) These values resulted in considerable ambiguities in the meaning and use of inclusion. They gave rise to tensions about what inclusion is and how it can be supported (Barton, 2003). The definition has moved from covering the smaller groups of children with special educational needs (SEN), disabilities and behavioural difficulties to larger groups that are susceptible to exclusion. Inclusion includes processes of 'changing values, attitudes, policies and practices within schools' (Polat, 2011). This change is more important in developing countries like Nigeria where the attitudes are from the cultural values and impacts all the social systems including educational practices.

2.5.2 Inclusive Education in England

Having looked at inclusive education in the developed countries in general, the practice of inclusive education in England, the country that colonised and Nigeria whose systems were often adopted by Nigeria without consideration of their different contexts will now be considered. The reason for this is that Nigeria can learn from the practice in England; evidence-based research and reviews that have been proved to be effective for inclusive education.

The education of children with disabilities in UK has always been backed by legislation and reviews since the education act of 1944 that established the education of such children based on their age, aptitude and ability. The generic term SEN covered all children with developmental difficulties that affected "their learning; their behavioural; emotional and social development; their communication;

and their ability to care for themselves and gain independence." At first there were 11 categories that were later reduced to four in the SEN Code of Practice (Lindsay, 2007). There are always reviews of the acts which results in changes to practice. The Warnock committee was set up in 1974:

> "To review educational provision in England, Scotland and Wales for children and young people handicapped by disabilities of body or mind, taking account of the medical aspects of their needs, together with arrangements to prepare them for entry into employment; to consider the most effective use of resources for these purposes; and to make recommendations."

> (The Warnock Report, 1978 p. 1)

The Warnock Report of 1978 (DES, 1978) gave rise to the *Education Act* (1981) which recommended integration for all children with disabilities or "handicapped" as they were referred to then. The legislation supported parental choice as the important rule. The act also required Local education authority (LEA) to identify and assess children with SEN for the appropriate provision for them.

Since then there have been more reviews of these legislations resulting in education act of 1993 and consolidated into the education act of 1996. The 1996 *Education Act* also established the *Special Educational Needs and Disability Tribunal* (SENDIST) that parents can access when there is dispute over provision. The 1996 act gave LEAs and maintained schools the Code of Practice that the parliament accepted as 'The Code of Practice on the Identification and Assessment of Special Educational Needs.' The role of the Special educational needs coordinator (SENCO) in maintained schools was established as well (DfES, 2001). From the first of September 1994, all schools and professionals working with children with SEN had to abide by the code. The code of practice was reviewed in 2002 and 2015 with changes in the categories of the children with SEN. The special educational needs and disability act (SENDA) of 2001 was established to give legal rights to people with disabilities at pre-and post-16 school education. Recently the Education, Health and Care (EHC) plans of Children and families act of 2014 replaced the statements of special educational needs and it covers all young people with disabilities up to the age of 25 years.

All these systems and structures were put in place for children with SEN and disabilities to guarantee their access to appropriate education and had started before the 1994 Salamanca statement on inclusive education. In the England context, inclusive education can also be linked to school attendance or behaviour without any association with disability (Ainscow, *et al.,* 2006).

Lindsay, 2007 found signs of change towards this policy by various governments. This is due to the politicians' perception of research evidence for the effectiveness of inclusive education.

The literatures were from 2001-2005; the number of articles was 1373 and different aspects of the process of inclusive education were examined. The practice of teachers was found to be central to

the effectiveness of inclusive education as well as the collaboration with other teachers. The attitudes and behaviour of the teachers are also crucial to the effectiveness of inclusive education (Avramidis & Norwich, 2002; Scruggs & Matsopieri, 1996). Teachers were generally more accepting of children with physical and sensory impairment than of children with behavioural and learning difficulties (Clough & Lindsay, 1991). Teachers' training and beliefs were found to be important while their ages and their gender as well the ages and gender of the children being taught were not found to be so important (Avramidis & Norwich, 2002). Farrell (2007) found that effective inclusive schools in England like the USA were:

"Focused on meeting the needs of all students; provided recognizably high-quality instruction in general education classrooms, used resources efficiently, but flexibly to meet students' needs; and used data systems to monitor student progress."

(McLeskey *et. al.,* 2014)

2.5.3 Inclusive education in other developed countries

In the United States of America (USA) there were policies in place for education of children with disabilities before the inclusive education policy initiative of Salamanca in 1994 that considered this the best way for all children to learn. In three decades (70s, 80s, 90s) the passage of the "*Least Restrictive Environment (LRE),* mandate of the *Education of All Handicapped Children's* act of 1975, "*Individuals with Disabilities Education Act (IDEA) of 1990"* law *and the "No Child Left Behind (NCLB) act of 2001"* (Obiakor *et al*., 2012) worked together to ensure high standard of education for all children with disabilities (Hardy and Woodcock, 2015). Young people with disabilities were identified considerably in "A Blue print for reform" (Hardy and Woodcock, 2015). So, at the National government level in the USA there were laws to back the inclusive education initiatives as well as provision of additional funding through the "Elementary Secondary Education Act (ESEA)." Schools are accountable for making sure that all students with and without disabilities make 'adequate yearly progress on academic achievement measures.' There were competing expectations of the schools for excellence and equity for all students. (McLeskey *et al*., 2014)

In parts of Canada almost all children with disabilities were educated in mainstream classrooms while in most European countries fewer students (average of between 4% to 5%) were identified as receiving their education in mainstream as compared to the USA with an average of between 11% and 12%.(Organisation for Economic and Cooperative Development, 1995) other European countries with higher numbers of SEN students in mainstream classes are Luxembourg (9%) and Finland (26%) where SEN students with and without labels are supported. 'Countries such as Norway, Greece, Portugal, Spain, Estonia, Lithuania, Luxembourg and Italy, have affected large-scale reforms that are

dismantling separate schooling in favour of more inclusive schooling for most of their students with special educational needs.' (Ferguson, 2008)

In New Zealand the education of only 1% of children in special schools, classes or units in mainstream schools makes the inclusive education system seem one of the best in the world. The policy and practice of inclusive education in New Zealand for all children with SEN and disabilities differs from that of England and USA in two ways. Firstly, by radical adoption of the 'goal of educating all children with disabilities and SEN in mainstream school' and secondly, by the deficiencies in the New Zealand system in the provision for the children. These deficiencies are seen in the lack of legislation in New Zealand unlike in England and USA where there is legislation (1996 education Act in England and the Individual with Disabilities act in the USA). Other areas where the New Zealand system is deficient is lack of statutory guidelines, trained SENCOs or SEN committees, IEPs, statutory training for mainstream teachers full-time training for special education teachers, statutory school educational psychologist involvement and 'coherent policy on inclusive education.' (Hornby, 2012) This practice of inclusive education in New Zealand that is a developed country shows that not all the developed countries' practice can be copied by the developing countries.

2.5.4 Inclusive education in the developing countries

In the developing countries of Africa, Asia, Latin America, Caribbean and Middle East the research on disabilities and inclusion has been mostly limited to the prevalence. Most of the children with disabilities in these countries do not attend school (Eleweke & Rodda, 2002; Singal, 2010). The inclusive education projects that Non-governmental organisations (NGOs) have undertaken in the developing countries and their effects are not known; creating a gap in the knowledge of their effectiveness. Reviews of inclusive education projects undertaken in some of the developing countries by NGOs and governments revealed that implementation of inclusive education is mainly by the NGOs not the government of the countries especially at grass-root levels (Alur, 2002, 2008; Srivastava et al., 2015). A research in India into the roles played by the NGOs in promoting inclusive education found that they were involved in the management of the educational settings and in the employment of personnel. The focus of the research was Tamil Nadu one of the foremost states in India with NGO initiatives in inclusive education. The two NGOs that operated in the state have different capabilities that were used to prepare for inclusive education and to provide transitional period before the state government took over responsibilities. (Furuta and Thamburaj, 2014) This research in India showed that the NGOs can use their different areas of expertise to support the government in development of inclusive education especially in rural settings.

The unsatisfactory implementation of Inclusive education in the developing countries was found to be due to many factors "such as the absence of support services relevant materials, inadequate

personnel training programmes, lack of funding structure and the absence of enabling legislation."(Eleweke & Rodda, 2002; Miles & Singal, 2010, Hornby, 2012) suggested that the policy makers of the different countries should look within their contexts and explore the opportunities that are present there to understand their own concepts of 'education', 'all' and 'inclusion'. This will enable them to develop teaching and learning policies that are suitable and sustainable for their own specific context instead of *'copycat educational ideology'* policies from the Western countries (Thomas 2013). The different countries are comprised of different marginalised groups who are at risk of exclusion from education and it is by looking at their different contexts that the needs of the groups can be identified and the right policy put in place to meet those needs.

2.5.5 Inclusive education and Africa

The formulation and implementation of inclusive education policy in most African countries was not supported by the governments with 'proper planning and resource provision' resulting in segregation and frustration for students with special needs (Abosi, 1996). Although the education of children and youth is improving but the education of young people with disabilities is not keeping up. World vision (2007) reported that disability is a major reason for children being excluded from education in Africa with less than 10% of disabled children that are of school-age going to school mostly in segregated setting (Chataika *et al.,*2012).

South Africa a very diverse country with a legacy of 'education policies instituted under apartheid' that separated learners by their different ethnic groups also separated them by disability. The end of apartheid brought compulsory education and elimination of segregated school practices. However, despite the inclusion of learners with disabilities, seen as a human rights issue they are still being educated in separate "special" schools. The inclusion of the rights of people with disabilities in the new South Africa constitution resulted in Education white paper 6 (Department of Education, 2001: 10) included the policy that brought in inclusive education to provide 'a cornerstone of an integrated caring society.' Despite this policy and compulsory school attendance for children between 7 and 15 years 70% of children with disabilities are out of schools. The challenges to the implementation of the policy included lack of clarity of the policy, school-level barriers, cultural-level barriers and the top-down approach to policy implementation. (Donohue & Bornman, 2014)

Engelbrecht, Nel, Smit, van Deventer (2016) found a significant a gap between 'the idealistic conceptualisation of inclusive education in South Africa policy documents and its implementation.' Despite the fact that there were individual teachers and policy guidelines with increase aim to decrease the gap between acceptance and participation, there were still barriers to learning and considerable educational inequalities.

Recently in Sierra Leone a country in West Africa in order to develop an inclusion policy, the current situation of children with disabilities and their families were studied. From the review of the literature specific to the country, the situation in other countries in Africa was established. The main challenges facing policy developers are the lack of data on children out of schools and the needs as well as reasons for 'difficulties in accessing formal schooling.' The researchers found that poverty, issues around child mental health and special educational needs and disabilities prevents children from accessing and finishing schooling. Also the quality of teacher education and poor remuneration that produces unqualified teachers who are not committed to the education of all children results in lack of effective inclusive education. (Rose, Garner and Farrow, 2019)

The practice of inclusive education in Ghana, a country in West Africa that was also colonised by England is guided by the EFA initiative. Ghana's concept of inclusive education is 'aligned with her FCUBE (Free compulsory universal basic education) policy- increasing access, retention and participation of all students of school going age in education and not the movement and provision of education to children with disabilities in regular school.'(Agbenyega, 2007) The most critical of all the barriers to inclusive education for children with SEND is negative attitude and cultural perception of people with disabilities. Students with disabilities are rejected by regular teachers while the resources and needed professional support from external agencies are lacking. The government of Ghana stated that:

> "The challenges facing the government of Ghana for ensuring social and educational inclusion include public prejudiced perception of persons with special needs, architectural barriers, inadequate assessment facilities, inaccessible curriculum, curriculum inflexibility and pre/post-training in special education needs for regular teachers."

> (GES, 2004)

Ametepee and Anastasiou (2015) found that Ghana is far from achieving an inclusive education system. Inclusive education is available for only '8000 students with mild to moderate disabilities in 34 out of 170 districts.' They argued that the main problem is the non-availability of needed funds to implement inclusive educational plans. Consequently, accessibility of children with disabilities to schools, formation of effective assessment and inclusive education system as well as teachers' training are obstructed. Ghana spent much more than the other Sub-Sahara African countries (about 25%) between 2004 and 2011 on education, although very little of it went on inclusive education.

2.6 Nigeria

Nigeria with a population of about 180 million is a pluralistic society made up of more than 354 ethnic and language groups with their own cultures, from majority Muslims in the north to majority Christians in the south (Fabunmi, 2005 Obiakor, 1998). Nigeria, the most populous African country, gained independence from Britain in October 1960 (Obiakor & Offor, 2011).

The Lagos colony, Northern and Southern British protectorates; colonies of Britain were amalgamated into a country in 1914. A system of indirect rule was introduced into the country whereby the traditional system of administration in the protectorates was acknowledged and used. This did not enable Christianity and western education (Britain style) from the southern protectorates and Lagos colony to spread to the Northern protectorate because of the Islamic education there. This created a gap in the educational standards between the north and south that is still in existence (Imam, 2012). The ongoing attack against western education by the terrorist group, Boko Haram (western education is forbidden) in the North-Eastern part of Nigeria has almost destroyed the western style educational progress made in that part of Nigeria. Schools have been attacked or shut down as children and women have been abducted. There are about 1.2 million internal displaced people living in refugee camps scattered in different parts of the country (Nigeria online news, June, 2015).

The study for this thesis was carried out in Lagos state, South-western Nigeria. Lagos state has a population of about 20 million (highest population density) and is the leading state in Nigeria because Lagos the capital of the state used to be capital of the country, Nigeria. Lagos is still the commercial capital of Nigeria. Hence Lagos is the most cosmopolitan and wealthiest of all the 36 states of Nigeria. Formal education or western style education was first introduced to Lagos. Any primary school classroom in most major cities of the country especially Lagos the commercial capital has teachers and children from the different ethnic groups and religions; it is a microcosm of the country (Nomishan, 2014).

2.6.1 Development of educational policies

The educational policies and planning in the country has been affected by the above gap in British educational development in the different regions of the country. In order to bridge the gap several policies have been put in place for example the quota system (bridging the gap between the educationally disadvantaged and educationally advantaged states) to create opportunities for the disadvantage states (Fabunmi, 2005). The beginning of the democratic processes and freedom from colonialism in 1944 has guided the educational policy in Nigeria such that national development was grounded on political and socio-economic considerations. In 1954 the three regions of Nigeria and the federal capital, Lagos were given power under a new constitution of the country to make laws and educational policies of their own. However, all the four areas based their educational policies on

the 'the Education act of 1944 of Wales and England.' The definitions of the constituents of the educational systems vary according to the different regions (Imam, 2012). This may be due to the language and cultural differences of the regions indicating that even when similar policies are adopted the interpretation and implementation may be subject to cultural differences.

The traditional education that was practiced before the country was colonised by Britain was replaced by the British colonial education based on primary, secondary, sixth form and higher education. The traditional education allowed the extended family system succeeds with family members caring for each other. The more able cared for the less able and every child was valued and looked after equally. The main aims of the traditional education were development of character, latent physical and intellectual skills, respect for elders and people in authority, vocational training and honest labour as well as promotion of cultural heritage of the community. (Eskay, 1998; Obiakor & Offor, 2011). The traditional education was done through oral instructions and was not written down. The traditional education taught in social settings enabled the adults be role models and hand down traditions from generation to generation. The African proverb that *It takes a village to raise a child* is confirmed in practice.

Adeyemi and Adeyinka (2003) argued that this system of traditional education practice in pre-colonial Africa was weak in not encouraging the writing and keeping of records and the transfer of knowledge between the different ethnic groups. The local teachers and craftsmen including herbalist were not able to pass their wisdom and knowledge to the next generation. However, the traditional education 'was a successful means of maintaining the economic, social and cultural structures and stability of the societies in which it was practised.' The traditional education was effective in the provision of employment for all able-bodied people.

The British colonial education system did not consider the cultures and the traditional style of education of the Nigerians in the planning and development of education. In spite of this, from 1944 to 1960 there was educational expansion in Nigeria and the educational administration was decentralised (Imam, 2012). The school system was aimed at production of civil servants who could not fit into their rural areas and move to cities in search of suitable jobs. The people with disabilities were not considered for education as the traditional education that meets the needs of the whole person was ignored. The development of vocational skill for independent living was not encouraged. (Obiakor & Offor, 2011)

The free universal primary education (UPE) was introduced to the western and eastern parts of the country in the 1950s leading to a wider gap in educational achievement between the south and north. The British educational policy was also criticised for being narrow in scope and the inability to meet the peculiar needs and aspirations of Nigerians (Fabunmi, 2005). The curriculum was not relevant and the methods of delivery were considered outdated with many students repeating

classes or dropping out of school while those who stayed and graduated were low on initiative. One of the difficulties identified in the education system was inequality of access to education (Imam, 2012).

However, the UPE was replaced by the free universal basic education (UBE) scheme for the whole country in 1999. The UBE law that was enacted in 2004 made provision for 2% of the Federal Government Consolidated revenue fund (CRF) to fund the UBE program. Hence the Universal Basic Education Act of 2004 gives the legal framework for the Federal government to support the states in the provision of free, compulsory uninterrupted nine-year primary and junior secondary education for all children in the country. 'This translates into six years primary schooling, three years of senior secondary and four years of tertiary education.' A review of the National policy on Education in 2013 one year was included for pre-primary education. (EFA Report: Nigeria, 2015) This was an opportunity for Nigeria to give her citizens quality educational and social services. There was no specific reference to the provision for children and youth with disabilities but under the law of Nigeria they are subsumed in the act as they are part of the society. Nomisham (2007) found that many schools did not have resources to enable teachers teach and class sizes were very large in classrooms that the teachers viewed as structurally unsafe. The United States Agency for International Development (USAID) reported in 2013 that:

> "The quality of basic education in Nigeria is extremely poor, leading to low demand and unacceptably low academic performance. There are 30 million primary school-aged children in the country, of whom an estimated seven million are not enrolled in school."

> (Nomishan, 2013 p. 51)

The children who are not enrolled in school include children who have disabilities and

whose parents may feel that the school cannot meet the needs of the children due to their perceived inability of the teachers to teach such children.

2.6.2 Provision of Special Educational Needs in Nigeria.

The development of special educational needs (SEN) provision in Nigeria can be assigned to two eras of educational reform. First one is humanitarian or missionary era (1945-1970) by private voluntary organisations (PVOs). They provided and established special schools and services for children and adults with 'handicaps' without the government support. The system was based on the system of segregation operating in the UK at that time. The second one, after the three-year civil war is the social service era during which the services developed. The government took over all schools including special schools from the PVOs (mostly Christians) (Garuba, 2003).

The first attempt to change the colonial orientation of the educational system in the country was in 1969, the National Curriculum Conference reviewed and identified goals for future direction of education in Nigeria. The first national policy on education was drafted from the goals and deliberations of 'experts' at a seminar in 1973. The federal government then released a National Policy on Education (NPE) in 1977. In the 1975-1980 the third National development plan has education in top priority and special education was included for the first time in the *National policy on education in Section* 8 (Garuba, 2003). The establishment of Section 8 was supposed to:

- Give concrete meaning to the idea of equalizing educational opportunities for all children, their physical and emotional disabilities notwithstanding.
- Provide adequate education for all 'handicapped' children and adults in order that they may fully play their roles in the development of the nation.
- Provide opportunities for exceptional gifted children to develop at their own pace in the interest of the nation's economic and technological development.

(Federal Ministry of Education, 1977 p. 1 cited in Obiakor, 1998)

The policy made provision for children with handicap to be integrated into mainstream schools.

It was proposed that the effectiveness of Section 8 was dependent on identification of all children and adults with disabilities by age, sex, type of disability and locality and a committee be established by Federal ministry of education 'to conduct special education activities in collaboration with the ministries of health, local welfare and labour.' All teacher training colleges were expected to 'provide general and basic courses for all prospective teachers who were willing to teach in regular schools but who needed requisite knowledge for identifying and assisting children with disabilities.' (Obiakor, 1998) In order to meet these needs University of Ibadan, the first university in the country started the diploma course in special education in 1974. University of Jos started the Bachelor degree in special education in 1977 and Master degree in 1978. In 1977 the Federal government established, the Federal Advanced Teachers' College, the only known training college of special education in Africa (Garuba, 2003).

Only one state out of the country's then 19 states (now 36 states) enacted a law in 1981 for the handicapped referred to as "*Plateau State Handicapped Law*" The law made education compulsory for all children with handicap and rehabilitation for adults with handicap. In 1993 the then Military Federal government decreed the legislation on the handicap. The implementation of the policy has been very poor. A 'National blueprint on education' in 1990 attributed the lack of success in delivery of the special education to inadequate funds (Garuba, 2003).

Research findings into the progress of special education in Nigeria by Ogbue (1975) revealed that only 27% of teachers involved in special education were trained and five categories of the children were identified: blind and partially sighted, the deaf and partially hearing, the physically disabled, mentally disabled and hospitalized children. Above all there were no systematic screening facility and there is only one assessment centre. Another study of special education in Nigeria by Ihunah (1984) confirmed the findings of Ogbue (1975) and discovered that the one year crash programme that provided more teachers for the free universal primary education that was introduced in 1976 for children age six to twelve years did not provide more teachers for children with special needs (Obiakor, 1998). Oluigbo (1990) was the first person to call the government's attention to the education of people with cognitive disabilities. He initiated that while the children with sensory and physical disabilities are enjoying the benefit of equal opportunity for educationally 'handicapped' children, children with mental retardation are neglected. The word 'handicapped' indicates that the medical or deficit model of disability (discussed above) was being used in the approach to children with special needs.

In all the categories of disabilities, there has been no mention of children with developmental disorders or other neurological disorders like ASD because the disabilities of many of the children were not identified. Children with severe ASDs are seen by medical professionals and are either in psychiatric hospitals, special schools for children with behavioural difficulties (Bakare & Munir, 2011) or locked up at home.

However, the first National policy on special needs education (SNE) in Nigeria was published in 2015 by the federal ministry of education to move "away from the narrowed scope nomenclature of Special Education to a more broad-based focus of *Special Needs Education and Rehabilitation Services"* (SNERS). The policy included the implementation guidelines and the minister of education declared that "With these documents in place, the practice of special needs education (SNE) in the country would reflect best global practices for our nation's development."

In many schools in Nigeria intervention for children with special educational needs fall under the counselling and guidance department. The children who have "milder" SENs in mainstream schools in Nigeria are likely to be referred to this department if their behaviour gives cause for concern. Fundai (2010) argued that the children with SEN are not identified early enough and there is no intervention for them. Some of them are not even identified at all throughout their school life and he included autism in the categories of SEN showing that some educational professionals are becoming aware of ASD.

2.6.3 Inclusive Education in Nigeria

The traditional education in Nigeria has always been "inclusive" in that all children were educated together in one classroom without segregation. Despite the negative perception of children with disabilities there were still high expectations of them because the society believed that every member must be enabled to maximize their potential. In some societies if the young person does not respond to the teaching using different strategies they may be removed because of the perceived inability to contribute economically to the society (Eskay, 2012).

In 1994 Nigeria was one of the countries that signed up to the Salamanca Declaration on inclusive education that "all children with special educational needs must have access to regular school." (Charema, 2010) The country adopted the inclusive education policy in her National policy on Education in 1998 (Fakolade, Adeniyi, Tella, 2009). The 2004 Nigeria national Policy on Education requires all children with special needs referred to as 'disabled' to have free education at all levels through "Special needs education". The term disabled in Nigeria 'refers to people with impairments; physical or sensory who cannot cope with regular school or class organisation.' (Akinbola, 2010). The term replaced the word handicap that was used previously to describe children with special needs and marked a shift to the social model of disability. According to the Policy the government has obligation to make sure all the children with disabilities have easy access to education and facilities necessary for them. The provision of inclusive education or units in mainstream public schools must be made available for all children with disabilities and the class size should be ten to a teacher. The policy has not been implemented as stated in the National policy act of 2004 that aims to address the inadequacies of the education of children with special needs.

The in Section 7of the revised National Policy on Education (2008) (Special Needs Education) described special needs education as:

> "education given to (children and youths) that entails modifications, adaptations, adjustments innovations, and management of curriculum, methods and materials in addition to the other resources and practices of regular schools to fit and meet the special learning needs of those who present different forms of disabilities and learning difficulties."

> (National Policy on Education, 2008)

The policy also recommended inclusive education services for all children and youth with SEN. The Policy is committed to the provision of equal educational opportunities for all children regardless of their 'physical, sensory, mental, psychological or emotional disabilities' (Ajuwon, 2008). Among the categories of special needs persons were people with sensory disabilities, physical and learning disability of psychological / neurological educational phobia or challenges that may include ASD.

2.6.4 Factors (mechamisms) influencing inclusive education in Nigeria

Having established that the Nigerian National Policy on Education (2004) included the education of people with special needs, however the evidence from literature and research is that the policy has not been fully implemented (Garuba, 2003; Ajuwon, 2008; Jerry, Rasaki, Igwe, 2014). The main factors for the state of implementation of the policy is dependent on the knowledge and attitude of the individuals responsible for the policy.

The negative attitudes of the teachers comes from their lack or low level of knowledge. Research into attitude of special educators who are supposed to work with regular teachers in mainstream schools on appropriate curriculum and classroom practice in Nigeria found that their attitudes depend on their training and religion. More than half (56%) of the 141 participants for the research recruited from two national conferences on special education reported having training in inclusive education before the research. Most of the special educators were tolerant of the different behaviours of their various students but they reported lack of confidence in managing these behaviours in inclusive classrooms. The research found that the gender and age of the participants were related to their attitudes. The female educators were more positive than their male counterparts towards teaching students with disabilities and the younger educators reported that facilities to support inclusive education is adequate. While in the Northern part of the country that is predominantly Muslims, the Muslims accept children with disabilities as "the will of Allah" and therefore accept them while the other participants who may be Christians from the different part of the country may not view them like that. The more the professional training they have obtained the better their attitude to inclusive education. (Ajuwon, 2012).

In the same way, another research into the attitude of 60 secondary school teachers towards the inclusion of children with special needs in general education classrooms in Nigeria found that gender and marital status influence the attitude of the teachers in different ways. The female teachers have more positive attitude to inclusion than the male teachers and the married teacher tend to be more favourably disposed towards the children with SEND. However, similar to the above research, the training of the teachers influence them the same way and the more qualifications they have the more positive their attitude to inclusion. The experience of the teachers did not have any significant effect on their attitude to inclusion. This may be due to the schools being in the rural areas and the teachers' exposure to media as well as other individual variables such as personality and demographic characteristics. (Fakolade *et al.*, 2009) This research was carried out in only one State (Oyo state) which is in the South-west and educationally more advanced than many states in the Northern part of Nigeria.

In conclusion, the two different groups of teachers confirm that knowledge of inclusive education and people with disabilities impact their attitudes towards inclusive education.

The National Policy on Special Needs Education in Nigeria of 2015 was preceded by a situational analysis 'to question the effectiveness of service delivery.' The situational analysis found that the practices are not at the level of global best practices. The special education graduates in Nigeria are not recruited into appropriate posts in schools as there is no legislation to back the existing policies and highlight the role of special education teachers. The SNEP proposed the change of the term used wrongly for all people with disability from "physical challenged" that only describes people with a type of disability to persons with special needs (PSN). The lack of early identification and a referral system for diagnostic and assessment centres were revealed. There is lack of data for planning and implementation of the policies.

2.6.4.1 Challenges to Inclusive education in Nigeria

There are lots of challenges to inclusive education in Nigeria as identified by researchers in the country. Most of the challenges come from the negative cultural attitude to disabilities that impacts all aspects inclusive education including knowledge that can come from training. At every level of the social systems there are challenges that constrain the process of inclusive education and result in poor outcomes for the young people in mainstream schools with SEN. The challenges can be the physical environment, systemic, financial, attitudinal and technological. (Adebisi,et al., 2014)

The inclusive education policy was adopted without due consideration of its implementation and the unique context of Nigeria. There were no systems and structures in place before the government signed up for the policy as in the developed western countries. The inclusive education policy continues as a theory without practice (Ajuwon, 2012; Garuba, 2003).

There are no plans for identification of people with special needs to enable provision of appropriate education and other services. (Ajuwon, 2003) Obiakor and Offor (2011) suggested that Nigerians will benefit from foreign cultures to meet the special educational needs of people and children with disabilities. For example, the system of identification of children with SEN in schools in UK can be copied. However, this can only happen if there is a change of "cultural paradigms" that sees disability as evil to seeing people with disabilities as normal.

Research in Nigeria into the effects of stigma on parents' choice regarding their children with SEN found that their perception of stigma directed towards children with SEN influence the educational decision for their children (Uba and Nwoga, 2016). The family is the most important institution in the culture and their involvement in the education of people with disabilities is very crucial. Many

parents in Nigeria, do not have sufficient information about the role of inclusive education in giving their children with disabilities equal opportunities. (Obiakor & Offor, 2011)

This lack of knowledge of inclusive education by the family is a great challenge as they make up the community. The change needed in attitude of the individuals in the community towards people with disabilities should start from them because 'the superstitious beliefs, values and customs that powerfully affect persons with special needs negatively are rooted in the communities.' (Jerry *et al.*, 2014) The lack of awareness and knowledge of special education resulted in the view that children with disabilities are not educable. The parents do not have sufficient information about the role of education that will allow them make

The inadequate funding of inclusive education is also responsible for the non-implementation of the policy as the needed resources, facilities and personnel cannot be acquired. All the different professionals in field related to disabilities are available in the country but they remained underutilised and unemployed. This results in inadequate services for parents and carers to approach about the range of the special education facilities accessible for their children. The different professionals are needed for identification, referral, diagnoses, treatment and educational interventions. (Garuba, 2003, Jerry *et al.*, 2014)

To confirm the above, Fareo and Ojo (2013) found that essential facilities needed by students with special educational needs in mainstream public schools were not available in South-western Nigeria resulting in poor outcomes for the students. The study was carried out in five south western states (Lagos, Ogun, Oyo, Ondo and Ekiti) in 35 public secondary schools with 1371 students with SEN. They found that specialist teachers were not enough to meet the needs of the students in the schools. They concluded that the there is need for more funding for the provision and maintenance of the equipment provided. The large number of students studied for the research across the five states makes it possible to generalise for the whole of the South west of Nigeria including Lagos state. The essential facilities considered in the study are hand railings, hearing aids, braille, instructional materials and lower toilets. There were typewriter, wheel chairs and resource rooms in poor conditions. This generalisation cannot be applied to all parts of Nigeria because education in the South-West especially Lagos is more advanced than in the other parts of the country especially the Northern part where in a state about 75% of the children are out of school.

There are administrative challenges that affect the allocation, administration and distribution of resources. The individuals in charge of the policy administration at the national, state and local authority levels are mostly non-professionals without passion for the needs of people with SEND and the knowledge that could inform their practice. Therefore, 'planning, monitoring, data collection, training and re-training of special needs teachers, social mobilisation, improved infrastructural facilities, improved funding and management' are jeopardised. The administrators are guided by the

negative cultural attitude as they are part of the community. The political will to implement the policy is lacking.

The focus on reducing the level of illiteracy among children and adults has also diverted attention away from special educational needs (Garuba, 2003). Ajuwon (2012) found that teachers were not confident of their ability to manage the behaviour of their students which may have negative impact on the outcome of the inclusions (Avramidis *et al*., 2000).

 In the Nigerian environment, there are many diverse groups of children who qualified for inclusive education under the United Nation initiative of *Education for All* (EFA). Children with disabilities are usually considered last after other groups such as girl-child and nomadic groups depending on the region of the country. There are no mandatory laws that support the implementation of special needs policies and provision for children with special needs (Obiakor & Offor, 2011).

Many universities in the country (Ibadan, Jos, Kano, Calabar, and Nsukka) and Federal College of education (special), Oyo as well as Kaduna Polytechnic train thousands of teachers to teach young people with SEND. However, there is lack of motivation and re-training for teachers whose morale is very low at the moment due to various factors such as non-payment of salaries, lack of material resources for teaching and lack of community interest in schools (Ajuwon, 2008). The trained teachers are leaving the jobs for 'greener pasture.' The non-implementation of the policy of providing all teacher education students with compulsory elements of special education by teacher training institutions in Nigeria is a challenge to inclusion. Student teachers who are going to teach in primary and secondary schools need more courses on special education (Garuba, 2002).

The lack of legislative provision in Nigeria does not encourage the implementation of the policy. Without the support of compulsory legislations the policy remains at theory level (Eleweke, 2003 cited in Jerry *et al*., 2014) Etscheidet and Bartlet (1999) argued that the legislation has:

Protective safeguards which guarantee the rights of the beneficiary to receive specific services

Time of onset and phase plan

Room for litigation

Accountability, evaluation and monitoring procedures

Financial backing and structure

2.7 Inclusive Education Practice in Lagos state

In Lagos state, there are 33 inclusive units attached to mainstream schools for children with all types of special educational needs including severe ASD the classes are very large with one teacher and

sometimes one carer for 40 children or more (Private visit by researcher for an NGO). The pupils with mild symptoms are supposed to go from the units to mainstream classes, however shortage of staff to support them in the mainstream classrooms often make this impossible. This is the kind of access to regular school for children with special educational needs practiced in Nigeria. The teachers and carers end up as mere baby sitters as there are too many children with severe SEND in the class to make learning possible.

In Lagos state, itself research into the determinants of successful inclusive education practice found that 'material, mind-set, manpower, experience and qualification' together influenced the success of inclusive education. This research that was done by the survey of 227 teachers and headteachers using purpose sampling found that teacher knowledge can be equal 'to the factor of mind-set, efficacy in teaching in inclusive setting and government initiative' when accepting children with SEN in kindergarten or nursery. While materials and teaching experience were positively related to inclusive education, mind-set and manpower were negatively linked to inclusive education practice. The most significant factor that was found to influence inclusive education is lack of school support shown by the unavailability of materials (Olufemi *et al*., 2015).

2.8 Summary

Inclusive education is a process of transforming schools' structures and systems to provide quality education for all children especially those that are at the risk of marginalisation due to their gender, ethnicity, socio-economic status of their parents and their ability or disability. The practice of inclusive education in the context of different countries of the world varies as there is no agreed definition of the concept. The formulation and implementation of the policy in the different contexts are influenced by their peculiar contextual factors. The interpretation given to the global initiative of inclusive education depends on the country and the government. Some developed countries for example USA and UK already have their structures and laws to support the education of young people with SEND before inclusive education was initiated. They adopted the initiative and use it to enhance the development of their existing provision for children with special educational needs and disabilities. Some countries in the developing world took the policy without any plan or preparation by their governments of implementing the policy. Many countries in Africa adopted the inclusive education policy as they adopted educational policy from the countries that colonised them without considering their own contextual education issues. Nigeria has many different groups who are marginalised or excluded from mainstream education that qualified for inclusive education resulting

in high demand on the limited educational resources available. Young people with mild SEN symptoms in mainstream schools are likely to be ignored as long as they are not disruptive. However, they are not likely to achieve their potential and may end up being excluded from the society because of lack of education as they may not attend school at all or drop out of school.

Chapter 3. Literature review (ii) Autistic Spectrum Disorder (ASD)

3.1 Introduction

> "People with AS (Asperger's syndrome) are like salt-water fish who are forced
> to live in fresh water. We're fine if you just put us into the right environment.
> When the person with AS and the environment match, the problems go away
> and we even thrive. When they don't match, we seem disabled."

(Young man with ASD cited in Baron-Cohen, 2003 p.180)

The previous chapter was about inclusive education of young people with all different types of SEN and disabilities in mainstream schools. The many contextual factors that can influence the growth and development of inclusive education practice in schools for all types of SEND can also influence the process of inclusive education for young people with ASD a type of SEND. Therefore in this chapter the knowledge of ASD that the individuals need from the definition and characteristics of people with ASD, the barriers to their learning and participation in the classroom are identified. The impact of knowledge and attitude from decisions practice of the people around the child with ASD in removal of the barriers through the process of inclusive education is explored. ASD is a lifelong condition and the management of the condition has to be taught to the people with the condition.

> "Teachers cannot make inclusion work in isolation. The real work of enacting
> inclusion in schools belongs to teachers, parents, children and young people on
> the autism spectrum and support agencies working together in participation
> and dialogue"

(Ravet, 2011, p. 679)

The aim of this research is to explore the impact of the knowledge and attitude on the practice of inclusive education by all the key people around a young person with the mild form of ASD who is in a mainstream school. Booth (2000) reasoned that the term 'special educational needs' can be replaced by 'barriers to learning and participation.' The various barriers for young people with ASD in mainstream schools could be identified from their characteristics and managed by the appropriate intervention of the people in their internal and external educational environment.

This chapter is the review of the literature and research on the provision of inclusive education for young people with ASD in mainstream classroom and the influence of the individuals around them who have to make decisions regarding interventions. The chapter starts with the definition and history of ASD. The broad and mild symptoms of ASD as well as the management of people with ASD and the factors that can influence the different facets are then discussed. These include the identification of people with ASD from screening and diagnosis. The interventions and the medical

and educational treatments available are presented. The psychological theories that explains the observed symptoms of ASD are followed by the influence on the management of people with ASD by the parents and professionals around them. The present state of research into the education of young learners with ASD globally and in Africa as well as the state of ASD in Nigeria is considered. Finally the gap identified in research into the inclusive education of young people with ASD in Nigeria compared to what is happening in the rest of the world is recognised.

3.2 What is Autistism Spectrum Disorder (ASD)?

ASD is a neurodevelopmental disorder characterised by the core impairments in reciprocal social interactions, communication and restricted repetitive actions (Lord & Bailey, 2002). The three core impairments were referred to as the 'triad' with the third one originally described as lack of flexibility and imagination (Wing, 1996). The triad agrees with the diagnostic criteria based on DSM (Diagnostic and statistical manual of mental disorders) by America Psychiatric Association (APA) and ICD (International Classification of Diseases) by World health organisation (WHO). The development of these classification systems and definition of ASD have been covered in many studies and will not be covered here. However the new edition of the Diagnostic and statistical manual of mental disorders 5 (DSM-5) (American Psychiatric Association (APA), 2013) has reduced the triad to dyad which is made up of social communication difficulties and restricted repetitive behaviours (Mandy, Charman, Puura, and Skuse, 2014). Some researchers disagree with the new DSM-5 as they see it as a backward step in the knowledge of ASD. Symptoms diagnosed as Asperger syndrome have not been included as a separate category of the developmental disorder. A recent review of the core symptoms of ASD and other developmental disabilities concluded that at the moment; the identification of the most crucial elements and criteria necessary for an ASD diagnosis is not easy (Matson and Jang, 2014).

These core impairments will be discussed separately as they vary in their types and severity in individuals with autism. There are rating scales and checklist that can be used to assess the levels of the impairments (Jordan, 1999). The trajectory of ASD symptoms varies in the different domains as time progresses which implied that they can be separated into parts partially or wholly for assessment (Matson et al., 2014).

3.2.1 Definition and history of ASD

The word autism has evolved from different ideas and meanings. Autism was first used by Swiss psychiatrist Bleuler to describe features of people diagnosed with schizophrenia in 1911 (Feinstein, 2010). In the 1920s and 1930s autism was treated by biochemical and diet supplements due to the belief that it was caused by diet. The anti-social and self-destructive behaviours exhibited were treated with electroconvulsive therapy. (Evans, 2003)

In 1943 in the United States of America (USA) autism was described by child psychiatrist Leo Kanner as "lack of affective contact, fascination with objects, desire for sameness and non-communicative language before 30 months of age". The name early infantile autism was used to emphasise the onset of autism in children. Kanner wrote that the children "have come into the world with innate inability to form the usual biologically provided affective contact with people." (p. 203 Wolff, 2004) Schizophrenia was ruled out psychosis was accepted. However in 1944 in Austria, Hans Asperger described in his thesis '*Autistic psychopathy in childhood*' the condition of some children who are able and gifted in Mathematics or natural science but their social skills were poor. He observed that these children are very sensitive although they are not able to empathise with others. He noticed that their acquisition of language was timely but peculiar and they could be identified in early childhood (Wolff, 2004). He still linked the condition to schizophrenia because the children were older than Kanner's children (Lyons & Fitzgerald, 2007). The condition referred to as Asperger's syndrome and Kanner's autism are now regarded as the same often named autism spectrum disorder (ASD).

Advance research into ASD has resulted in the different concepts of the condition over the years. While the early theories perceive ASD as an emotional disorder, it is now accepted as a neurological developmental disability. 'Pervasive developmental disorder' (PDD) was accepted in both ICD-10 (World health Organisation, 1992) and DSM IV (American Psychological Association, 1994) was used as a cover for core autism and autistic like disorders. The term PDD has now been substituted for ASD to reflect the connection among the subcategories of ASD.

3.2.2 Spectrum of Autism

The term spectrum was proposed by Wing to bring together the different sub-types of autism and their relationships (Wing, 2003; Frith, 2008). Eleven children were identified by Kanner in 1943 with the type of autism referred to as 'classic autism.' Their Intelligence Quotient (IQ) was below 70 while children identified by Asperger have average and above IQ. The main difference between children with Kanner type autism and Asperger syndrome is the severity of the autism symptoms and ability of the children (Jordan, 1999). Since autism is no longer seen as categorical, it is described as a disorder with sub-types that make up the spectrum. Two core features were identified for six subgroups; social communication difficulties and repetitive actions and narrow interests (Baron-Cohen, 2009):

> "Asperger's syndrome (IQ above 85 and no language delay)
>
> High functioning autism (IQ above 85 and no language delay)
>
> Medium-functioning autism (IQ is 71-84 with or without language delay)

Low-functioning autism (IQ less than 70 with or without language delay)

Atypical autism (late onset or having one instead of the two core features)

Pervasive developmental disorder –not otherwise specified (features are too mild to warrant a clear-cut diagnosis of autism or Asperger syndrome but the individual has more the usual number of autistic traits)"

(Baron-Cohen, 2009 p. 14)

Asperger has been removed from DSM- 5 as a separate category; children who would have been identified under this category will now be identified as having mild to moderate ASD. They may be without learning difficulties and those with high IQ can be referred to as high functioning ASD (HFASD). The children that are the focus of this research should display mild symptoms of ASD that is from medium functioning to high functioning (IQ 71-84 with no language delay) which made it possible for them to be in mainstream school.

3.2.3 ASD as a Disorder

There is no agreed general terminology for autism at the moment as it can be Autistism spectrum disorder (ASD) or Autistism spectrum condition (ASC) (Baron-Cohen, 2008, Roth 2010). Some people refer to it as Autistic spectrum disorder (ASD) in that it gets in the way of development and affects functioning. Meanwhile some more able people on the spectrum and their families, who perceive autism as being a difference because of certain non- social skills, see it as a condition. Jordan (2007) suggested that ASC may become ASD without the recognition of their differences and perception as well as appropriate support. Baron-Cohen (2008) prefers ASC as he doesn't think that the differences should be considered a disorder. As a condition ASC reduces the stigma as it is portrayed as a medical condition and the individuals with cognitive strength. I will continue to refer to it as ASD because of the stigma still attached to disabilities in general in Nigeria. This is also in agreement with the WHO (2005) report that a condition becomes a disability because of environmental factors.

Frith (2012) stated that:

"The person with autism does not just have the behavioural features of autism, but has different cognitive machinery and hence sees and experiences the world differently at a very central and personal level."

3.2.4 Characteristics of young people with ASD

Inclusive education of young people with ASD can only be effective if teachers develop an understanding of their unique and exceptional learning characteristics and behaviours (Jordan, 2008; Ferraioli and Harris, 2011). It is very important to focus on their 'individual strengths and interests' for effective intervention due to the diversity that exists among the people with ASD (Jones, English, Guldberg, Jordan, Richardson, Waltz, 2009). The lack of understanding and adaptation of the systems around young people with ASD results in segregation as in the past (Jones, 2006; Barnard and Potter, 2000).

The teachers need knowledge to understand ASD and the individual child because there is no specific approach for each situation (Jordan 2005a). Guldberg (2010) proposed that teachers need knowledge of the triad of impairment and the educational implications, theories explaining behaviour of children with ASD, sensory processing and recognition of the role of parents. For real inclusion to happen for a child with ASD the educational provision considered suitable must adapt itself to meet the needs of the child (Barnard, Broach, Potter, Prior, 2002). In a survey of local education authorities across England, Wales and Scotland (Barnard *et al.,* 2002) it was discovered that although inclusion works for many children with ASD, however the severity of ASD symptoms and the availability of resources can influence it.

Young people with AS and HFASD were perceived to have "mild" form of the disorder and should be easier for inclusion than those with classic autism. The main clinical features of AS are:

- Lack of empathy
- Naïve, in appropriate, one-sided interaction
- Little or no ability to form friendships
- Pedantic, repetitive speech
- Poor non-verbal communication
- Intense absorption in certain subjects
- Clumsy and ill-coordinated movements and odd postures

(Burgoine and Wing, 1983)

Frith (2008) suggested that the description of AS as a "mild" form of ASD may be deceptive and suggested that "it may be a form of relatively pure autism where massive learning and compensation

are covering up the core problems." This is because people with AS usually have high intelligence and some have been able to write about how they cope with their difficulties.

However children with AS who appear normal to their peers are more vulnerable to bullying and teasing because they cannot justify their behaviours (Sansosti & Sansosti, 2012). A small-scale study of the views and experiences of young people with ASD in secondary school in the UK found that they have negative perceptions of their condition and the ability of the schools to meet their needs (Humphrey and Lewis, 2008). On the contrary, Conn (2014) from a case study of a child with ASD in a mainstream classroom found that they were able to apply their social knowledge in different social contexts. Their social difficulties were not considered as weakness but competence.

3.2.4.1 Social interactions

The impairment of social interactions is classified into four main groups of aloof, passive, active but odd and over formal that is usually among the most able individuals with ASD (Wing, 1996). A recent study in the Netherlands into the social interaction styles of children (ages 6-19 years) and adolescents with high functioning ASD (HFASD) confirmed the active but odd style of social interaction among them as well as symptoms of attention deficit and hyperactivity (Scheeren et al., 2012). The social responsiveness scale (SRS) which is a parent or teacher questionnaire for ASD assessment was used to measure the social interaction style. The aloof and passive social interaction style was found to be positively linked with the ASD symptoms and negative linked to the severity of the ASD. Meanwhile the link between the active but odd style was modestly negative.

3.2.4.2 Communications

Individuals with ASD have difficulties with verbal and nonverbal communications. The verbal communications involve delayed language, difficulties with initiating and sustaining conversations as well as repetitive and stereotype language (Charman, 2005). The nonverbal communications include difficulties with joint attention, frequency of communication and turn-taking skills (Chiang, Soong, Tzu-ling, Rogers 2008, Mundy and Crowson, 1997)

3.2.4.3 Restricted repetitive behaviour

This impairment of ASD can be divided into two sub groups that are Repetitive sensory motor (RSM) and Insistence on sameness (IS). While RSM involve behaviours that are related to sensory seeking attention and motor gestures, IS involves compulsive behaviours and rituals as well as problems with variations of routine (Cuccaro *et al.*, 2003, Bishop, Hus, Duncan, Huerta, Gotham, Pickles, Kreiger, Buja, Lund, Lord, 2013). RRB used to be considered a marginal feature of ASD but with the

DSM-5 it is now considered a core feature in identification of people with the condition. (Mandy, Charman, Puura, and Skuse, 2014).

3.2.4.4 Comorbidity in ASD.

The identification of children with ASD can be made more difficult by the occurrence of comorbidities (Yates and Couteur, 2008). These are medical conditions that occur in individuals with ASD and may not be diagnosed due to difficulties with detailed assessment (Mannion & Leader 2013). Hartley & Sikora (2009) found that children with IQ greater than 70 that can be classified as high functioning ASD may have overlapping symptoms of psychiatric disorders that affects screening accuracy. Some of the comorbid difficulties are 'intellectual disabilities, physical conditions, comorbid psychopathologies and challenging behaviour.' (Matson and Goldin, 2013)

Intellectual disability (ID) or learning disability and ASD co-occur with each other a lot. Characteristics of intellectual disabilities include deficits in social, cognitive and adaptive skills. ID can be accompanied by challenging behaviours and stereotypical behaviours. ID is a strong predictor of poor ASD prognosis. People with ASD and ID are noticeably different from people with ID or people with normal IQ and ASD. O'Brien and Pearson (2004) found that the less the IQ the more severe the ASD symptoms and challenging behaviour that makes both ID and ASD a main risk factors. The higher rate of challenging behaviour displayed by children with both ID and ASD tend to carry on till later on in life. People with ASD and ID can also be 'vulnerable to anxiety, mood, sleep problems, organic syndrome, stereotypies and tics. (Matson & Shoemaker, 2009)

A school-based health survey of children that have been clinically diagnosed with high-functioning forms of autism in Iran revealed that 72.5% of them had at least one comorbid condition. Attention – deficit hyperactive disorder and epileptic disorder were the highest categories. The children were between the ages of 6 and 14 years did not have any form of mental retardation (Memari, Ziaee, Mirfazeli, Kordi, 2012). Ming, Brimacombe and Chaaban (2008) found link between sleep disorders, gastrointestinal dysfunction and mood disorders. The individuals with Asperger syndrome were associated with psychiatric comorbidities (Ming *et al.*, 2008). These comorbidities can also cause discomfort and interfere with the social, behaviour and education of all the children with and without diagnosis of ASD. Similarly in Sweden, research linked young people with mild ASD

(AS/HFA) with insomnia that is often associated with behaviour problems. In a comparison of 32 children age 8-12 years with AS/HFA and same number of children without but matched in age and gender, the parents reported that the children with AS/HFA have difficulties sleeping at night. However daytime sleepiness was more common among the children with AS/HFA than in the typically developing children. (Allik, Larsson, Smedje, 2006) Since this is the group of children who are likely to be in mainstream school the knowledge of what may cause behaviour problem for them is

necessary for the teacher to know. The number of the children with AS/HFA in the research may be small but the comparison with the other group gave the study strength.

Primary school teachers in South-west Nigeria reported poor knowledge of attention deficit hyperactivity disorder (ADHD) a comorbid condition of ASD and mental health issues in school children (Jimoh, 2014) The teachers would be confused by the behaviours exhibited by the children without the ability to distinguish symptoms of ASD from the comorbid disorders and all the children may be treated the same. The knowledge of ASD should enable the teachers to distinguish the children with ASD from the children with only the comorbid conditions.

3.2.4.5 Sensory and Perceptual difficulties

Hyposensitivity or hypersensitivity to external stimuli is frequently among parents' initial reasons to seek diagnosis for children with ASD (Baker, Lane, Angley, Young, 2008). Wiggings, Robins, Bakeman, and Adamson (2009) reported that young children with ASD had tactile/taste hypersensitivity and difficulty with auditory stimuli. A strong association was found to exist between sensory responsiveness and social severity in children with high functioning ASD (HFASD) (Hilton *et al*., 2010). Although this study was based on a small number (n=36) of children with HFASD but a previous study without a comparison group gave the same result (Hilton, Graver, LaVesser, 2007). Difficulties with auditory stimuli may cause children with ASD to misbehave due to lack of understanding of teacher or peers especially if the system becomes overloaded (Tecchio, Benassi, Zappasodi, Gialloretti, Palermo, Seris, Rossini, 2003). Overload can also be caused by lights, smells and sights.

"Sensory overload feels like you are drowning, blind, banging your head against a brick wall and in a sauna – all at the same time. I am SO sensitive and it's horrible."

(Adult with ASD on NAS, website, 2018)

However sensory reactions may not be observed in a child with ASD as it may be very subtle and the child may not be discerning that their response is different from others. For children in mainstream school who may have HFSAD, teacher's knowledge of sensory issues in children with ASD is important. Children who were identified by the DSM-IV as AS exhibited the same sensory issues as children identified with ASD but children with AS appeared to have more difficulty with processing touching than the children with ASD (Dunn, Saiter, Rinner, 2002; Myles, Dunn, Rinner, Hagiwara, Reese, Huggins, and Becke, 2004). A small-scale research into sensory experiences of young people with ASD reported that a sensory stimulus that is expected and predictable is preferred to an unexpected and uncontrollable one (Ashburner et al., 2013). Although this is a small-scale study of

only three high functioning people with ASD but the fact that they were able to express their feelings directly to the researcher makes the study reliable.

Sensory processing difficulties were included in the diagnostic criteria for ASD in the DSM- 5 for the first time. This is the processing of sensory information of visual, auditory, vestibular or proprioceptive by the cerebral cortex and brainstem to enable people adapt to their environment and handle daily living (Bogdashina, 2003). The appearance of these sensory processing difficulties is often observed before formal diagnosis (Baranek, 1999). About 95% of children with ASD were reported to have sensory processing (SP) difficulties. Also significant relationships difficulties linked SP and emotional and behavioural difficulties in the children (Baker *et al.,* 2008).

3.2.4.6 Prevalence of ASD

The above characteristics of people with ASD are used in epidemiological studies that reveals an increase worldwide in the prevalence of ASD. The perceived increase in the prevalence ('the proportion of individuals in a population who suffer from a defined disorder at any point in time' (Elsabbag, Divan, Koh, Kim, Kauchali, Marcín, Montiel-Nava, Patel, Paula, Wang, Yasamy and Fombone, 2012) rate of ASD globally is due to its growing awareness among parents and professionals (Fombonne, 2005). Also the recognition and the modifications in the diagnostic criteria and switching of categories contributed to the increase as well as access to services (Wing & Potter, 2002). The prevalence rates have also been influenced by the amount of research that has been done in the different countries. A review of epidemiological surveys of ASD and pervasive developmental disorders commissioned and supported by WHO found the median of the prevalence rates worldwide to be 62 out of 10,000. In the USA the prevalence rate increased from less than 3 per 10,000 in the 1970s to 34 to 93 per 10,000 in the 2000s. In the USA, the Centre for Disease Control (CDC) (2014) reported that 1 out of every 68 children were diagnosed with ASD. South Korea reported a higher rate of 11 in 38 children diagnosed with ASD (Kim *et al*., 2011). The rates vary among near and far regions of the world with countries outside North America and Europe reporting lower prevalence rate. In the UK, a school-based population survey of mainstream and special primary schools within the county of Cambridgeshire revealed a prevalence rate of 157 per 10,000 that is about 1%. (Baron-Cohen, Scott, Allison, Williams, Bolton, Matthews, Brayne, 2009)

'The clinical phenotype of ASD is not thought to differ by race yet the prevalence differs across racial groups.' (Burkett, Morris, Manning-Courtney, Anthony, Shambley-Ebron, Burkett, Morris, Manning-Courtney, Anthony, Shambley-Ebron, 2015) This may be due to how the different racial groups perceive behaviours. Studies indicates that ASD onset and symptoms as well as prevalence are comparable among European and North American inhabitants. The available data sets could not be

used to verify such effects in other countries except for Japan and Australia (Elsabbagh *et al.*, 2012). A literature search of ASD prevalence studies across countries revealed that the variation is due to methodological factors. Only within the USA has the prevalence of ASD in different ethnic groups been studied and children of Hispanic origin have the lowest prevalence rate while White children have the highest rate. The differences observed can be linked to methodological and socioeconomic factors as well as bias (Zaroff and Uhm, 2012).

In contrast, study of African American families on ASD diagnosis and treatment found that the delay was due to cultural influences. (Burkett, Morris, Manning-Courtney, Anthony, Shambley-Ebron, 2015) The was study carried out by interviews and in-depth observation of 24 urban family members including 8 mothers and 5 fathers as well as 11 others (grandmothers, siblings, aunts, uncles and cousins) that are caring for children with ASD. The study revealed that the bias of the medical professionals and the family's explanation of the child's behaviour 'were substantiated as cultural influences in the diagnostic delay.' This is a study of families that obtained their child's diagnosis before age four and live in an urban Midwestern USA city where they are vigorously involved in developmental health care but they still have the influence of culture. Families in rural areas who are less-educated and do not have such access to health professionals are likely to be subject to stronger cultural influence and longer delay in diagnosis.

In Sub –Sahara Africa (SSA) very few studies have been carried out on prevalence studies. The samples have been taken from hospitals or specialist units for children with SEN. Most studies in SSA about ASD are from South Africa and Nigeria. Lagunju *et al.* (2014) from 2320 patients from a paediatric neurological clinic found an estimated prevalence rate of 2.3% in Nigeria. However the studies of people with ASD in Nigeria are mostly carried out by the medical professionals who are likely to see only the young people with the severe form of ASD (Bakare, Ebigbo, Ubochi, 2012; Abubakar *et al.*, 2016). Bakare *et al.* (2012) from a prevalence study of ASD in Nigeria found that among 44 children with intellectual disability five (11.4%) met the criteria for ASD diagnosis. Their prevalence study are not likely to be a true reflection of the situation in the country as many parents may not have access to the hospitals.

3.3 Management of young people with ASD

The above global increase in the prevalence of ASDs and the fact that it is a lifelong condition not just a childhood disorder but a developmental disorder that can manifest in different ways during the life span (Lord, 2010) make the long-lasting management of the condition necessary. This management of ASDs depend very much on the behavioural strategies and 'habilitative' (make fit or capable to function) therapies that deal with the core features of ASDs including daily-living and social skills as well as academic achievement (Myers & Johnson, 2007).

All aspects of the management of the young people with ASDs are influenced by contextual factors in the environment in which the decisions must be taken on what should be done to ameliorate the symptoms of ASDs. These decisions are also influenced by contextual factors that impact the practice of inclusive education that has already been considered under the previous chapter as well as the severity of the ASDs. The different stages are identification of young people with ASD by screening and diagnosis as well as the interventions (educational, medical and alternative). 'Early identification and subsequent intervention lead to a better prognosis for the child' (García-Primo, Hellendoorn, Charman, Roeyers, Dereu, Roge, Baduel, Muratori, Narzisi, Van Daalen, Moilanen de la Paz, Canal-Bedia, 2014). The management of young people with ASDs starts with the identification by screening of pre-school children, diagnosis of school-age children who may be identified by school staff or parents and diagnosed by the medical professionals. The interventions for ASD may be medical or non-medical and educational. The educational intervention was described as the 'cornerstone' on which all the other interventions are anchored (Myers *et al.*, 2007).

3.3.1 Identification of young people with ASD

ASD is identified by behaviour difficulties in the three core areas of social interaction, communication and repetitive and restricted behaviour. At present there are no conclusive biological indicators or test for identification of children or adults with ASD (Spence et al., 2004). Norbury and Sparks (2012) argued that conditions such as ASD 'are universal, biologically influenced, and cross country and cultural boundaries.' However there is not much agreement on what differentiates the differences from the disorder. The diagnostic criteria are based on the classification systems published in the Diagnostic and statistical manual of Mental Disorders (DSM) by the American Psychiatric Association (APA) and the International Classification of Diseases (ICD) are employed for diagnosis. While the DSM covers psychiatric and mental health conditions the ICD covers all areas of medicine.

"*Among the most pressing challenges in identifying students with ASD is the need for more coordinated efforts among various professionals and disciplines for the training of educators in evidence-based instruction and behavioural management practices, and for greater attention to the emotional and social well-being of children with ASD*"

(Wilkinson, 2010)

Studies carried out in both UK and USA have revealed gap between the time a child is diagnosed and when they could have been diagnosed (Wilkinson, 2010). A recent study across five countries (Canada, Australia, New Zealand, England/Ireland, USA) found that young people with mild ASD

(previously referred to as Asperger syndrome) were diagnosed at an average age of 7.5 years resulting in delay in accessing services (Goin-Kochel, Mackintosh, Myers, 2006).

A national survey in the USA linked the differences in the age of parents' first concern and diagnosis of children with ASD to multiple individual and family factors resulting in delay in treatment and early intervention. The factors included geographic characteristics and 'cumulation of cultural, educational and health system factors' (Rosenberg, Landa, Law, Staurt, Law, 2011).

3.3.1.1 Screening

The purpose of screening for ASD is to identify children who may be at risk to refer them on for diagnosis and intervention. For screening to be effective it must be able to identify children with ASD who have not been diagnosed and whose parents or caregivers are not aware that they may be at risk of ASD. There are factors that influenced use of ASD screening tools by paediatricians in their practice. The availability of time, experience and knowledge of using specific screening tools as well as systemic factors including knowledge and entry into community resources (Angie *et al*., 2015).

In the UK, universal whole population screening is not encouraged due to the poor sensitivity and specificity of available tests however, there is combination of targeted or selective screening based on the recommendation of clinicians and families. (Levy, 2009) Baron- Cohen *et al*. (2009) found from the screening of an entire primary school-age population in a county in UK found that there are young people with high-functioning autism that have not been detected.

In contrast in the USA, there is routine general developmental surveillance that may lead to disorder-specific screening for children identified during routine screening to be at risk. There is also universal ASD-specific screen at ages 18, 24, or 30 months. The effectiveness of the two different approaches cannot be compared because of the non-availability of adequate data (Levy, 2009).

Wilkinson in USA (2010) reviewed five screening tools that can be used to screen children of school age who may have ASD. Two of them the Social Communication Questionnaire (SCQ) and the Social Responsiveness Scale (SRS) are commercially published instruments while the other three, Autism Spectrum Screening Questionnaire (ASSQ), Childhood Autism Spectrum test (CAST) and Social Communication Disorder Checklist (SCDC) are available free for research. All the tools were reviewed because of their efficacy in identifying subtle and milder forms of ASD and have been validated with good psychometric properties. The screening tools were proved suitable for first-level screening at all levels of ASD that can be used for the identification of all children that may need additional assessment for ASD.

In contrast in Uganda a 23-question screener was developed out of a ten-question (TQ) screener by adding more questions to it. The original TQ screener was designed for use across cultures for parents to respond with simple yes-no answers to questions that focus on universal abilities children in all cultures can acquire. The parents were asked to compare their children to other children of same age in their cultural setting. The modified screener with23 questions was able to identify children with ASDs in Uganda and other Sub-Saharan African countries. 1169 children of ages 2-9were assessed and 320 (27%) screened positive and 68 received the diagnosis of neurodevelopmental disorders of inclusing 8 children with ASD. (Kakooza-Mwesige, Ssebylaa, Karamagi, Kiguli, Smith, Anderson, Croen, Trevathan, Hansen, Smith, Grether, 2013)

In Nigeria, there is no screening of young people for ASD so children with ASD who are verbal are highly likely to start in mainstream school and remain there unless their behaviour leads to exclusion. (Odunsi, 2012).

3.3.1.2 Diagnosis

The process of diagnosis can be delayed until school age by a lot of factors resulting in young people with ASD in mainstream schools without identification of their SEND. (Mandell, Maytali, Zubritsky, 2005). The collection of information from multidisciplinary team (Baron-Cohen, 2008) that is necessary and understandable as well as parents often contributes to delay in diagnosis.

Frith (2013) suggested that the use of diagnostic instruments that has enabled research into autism at all stages of development also revealed that:

"*First diagnosis based on behavioural criteria will always be problematic, as behaviour is strongly influenced by comorbidity, motivation, age and ability. Second compensatory learning can circumvent or cover up, but not eliminate, some basic difficulties in cognitive processing. Third, comorbidity and low general ability tend to reduce opportunities for compensation.*"

(Frith, 2013 p. 670)

However, Mandell et al. (2005) in the USA from a survey of 969 caregivers, found that the age of diagnosis for high functioning children with ASD is decreasing rapidly. The study suggested that this is linked to the socio-economic status of the caregivers, paediatrician and physician experiences as well as the clinical presentation of ASD.

The severity of ASD exhibited by boys may result in them being diagnosed more than girls. A study of 56 high-functioning children with ASD and 44 children without ASD found that while there no gender differences in the ASD symptoms displayed however, the males displayed more hyperactive

behaviour than the females. This lower hyperactivity levels displayed by the females may be one of the reasons for their under-identification. (May, Cornish, Rinehart, 2014)

In the UK research found that biological and social factors can influence attendance of children in the clinic. The age and mental health of the mother before and after birth and position of the child in the family can be a contributory factor to the delay in diagnosis. Maternal depression symptoms at 21 months were linked to delay in diagnosis. First-born children are less likely to receive diagnosis than children in other positions in the family (Russell Steer, Golding, 2011). Contrary to previous studies (Mandell et al., 2002), there was no difference found in the age of diagnosis for white and black children which was associated with lack of health inequality as in the USA.

As a mother of a teenage child who has been through the process of ASD diagnosis in the UK I found that the visits to the different clinics not only added to the child's anxiety but by the time she was observed in her lessons at schools she seemed to know the behaviour that is expected of her. Unfortunately the conclusion of the multidisciplinary team was influenced by the observations in the classroom that was staged by the child who by then knew the behaviour expected of her from counselling by clinical psychologist as part of her therapy.

3.3.1.3 Cultural influence in diagnosis of ASD

The cultural context of the individual determines the behaviour that is socially acceptable.

"As with most behaviourally defined disorders, the point at which normal variation converges on disorder is largely an arbitrary decision and is highly likely to be influenced by cultural values and expectations. Culture shapes behaviour, and standards of what is and is not acceptable behaviour are culturally determined"

(Bruner, 1990)

The significant difference in prevalence rates of ASD across countries and among ethnic groups within the same country demonstrates that the identification and diagnosis of young people with ASD is influenced by the contextual cultural values.

A comparative study in USA of toddlers from ethnic minorities parents to non-minorities (Caucasian white) from upper to middle class revealed that 'subtle' communication delays ignored or considered unremarkable by the ethnic minority parents due to cultural differences can be responsible for late presentation of the children at clinics. The making of eye contact with adults and imitating them by children in Asian and African communities is considered rude in their cultures (Tek and Landa, 2012). Hence children not exhibiting these behaviours in the ethnic minorities are not considered as having developmental issues by their parents. There is need for professionals to

identify ASD assessment methods that are least biased in populations that are culturally and linguistically diverse (Harris, Barton, Chantel, 2014).

A comparative research into the applicability of the DSM-5 model to young people with ASD and the broader autism phenotype in Finland and UK found that while the DSM-5 model fitted well among the young people with ASD in both countries, the result was different among the young people with the broader autism phenotype. The DSM-5 model fitted well among the young people in the UK but poorly in Finland. This finding revealed that there may be greater cross-cultural variability among people with milder autistic symptoms. (Mandy, Charman, Puura, Skuse, 2014)

Likewise, Norbury and Sparks (2012) argued that cross-cultural research will enable researchers to describe precisely the features of ASD that are universal and the ones that are culturally specific phenotypes. Moreover, cross-cultural studies will help researchers to improve on cognitive theories and 'identify supports for cognitive development.'

The trajectories of ASD severity in early childhood (birth to 8 years) period of fast development can also be a factor in the delay of diagnosis of ASD. Four classes of autism severity were identified in early childhood: 'Persistent high, Persistent moderate, Worsening and Improving.' (Venker, et al., 2014, Gotham et al., 2012). The Improving and Worsening group have better verbal IQ at age 2 but at age 6 the verbal IQ in the Improving class was considerably higher than those in the Persistent high class.

The diagnosis of ASD is:

'*working hypothesis that a specific collection of signs and symptoms signifies the presence of ASD…these diagnostic criteria need to be tested and modified accordingly.*'

(Mandy, Charman, Puura, Skuse, 2014 p. 45)

In Nigeria, the DSM is used for diagnosis as the approach to ASD is associated with mental health conditions and the children diagnosed would have been seen only by child psychiatrist (Bakare Ebigbo, Agomoh, and Menkiti, 2009) Few were identified by a speech and language therapist approached for therapy (Nwanze, 2011). The factors that were linked to late identification in Nigeria are poor knowledge and awareness about ASD, cultural beliefs and practices, help seeking behaviour, non-specific pattern of presentation of ASD, in adequate trained personnel and inadequate health care facilities and intervention. (Bello-Mojeed, Bakare, Munir, 2014)

3.3.2 Interventions and treatments for ASD

The diagnosis of ASD is usually followed by interventions and treatments that could help diminish the core symptoms of the condition in the individuals. The family (parents) of the people with ASD and

the educational system are often the sources of the interventions. There are medical pharmacological treatment, complementary and alternative medicine as well as educational intervention that is described as the 'cornerstone' of the interventions and treatments.

The medical professionals are usually able to guide families on appropriate available educational services (Myers and Johnson, 2007). This may be the case in the UK, USA and other European countries where there is easy and free access to the clinicians and children with ASD may be diagnosed before school-age, however in Nigeria where access to clinicians is not always available or free, families of children with mild ASD symptoms who are not giving parents obvious cause for concern are not likely to see medical professional to advise them on appropriate educational services.

3.3.2.1 Complementary and alternative medicine (CAM)

The foundations of alternative and complimentary therapies or treatments are 'variety of conventional and unconventional medical and philosophical beliefs.' While complementary medicine and conventional medicine are used together, alternative medicine is substituted for conventional medicine. (Hanson, Kalish, Bunce, Curtis, Mcdaniel, Ware, Petry, 2007) There are biological CAM like diets, supplements and anti-infective like antibiotics as well as non-biological like massage and yoga (Levy *et al*., 2009). A lot has been written on the controversial and understudy of CAM and the non-scientific proof of their effects on symptoms of ASD therefore I will not go into the details here. (Hyman and Levy, 2005 cited in Christon *et al*., 2010) However, parents tend to turn to CAM with high expectations when the ASD symptoms are very severe and the therapies are not seen as effective (Myers and Johnson, 2007)

The rates of usage of CAM for children with ASD have varied from 32% to 92% (Christon *et al*., 2010) Study in the USA of parents of children with ASD about usage of CAM found that over 70% had tried at least one form of the treatment while about 50% are still using CAM. Parents stopped the treatment when they did not see the effect on their children. (Christon *et al*., 2010). Another study revealed the link between the length of time of diagnosis and the high rate of CAM usage. The higher the level of education of the family the more likely they are to use CAM however, it was suggested that the motivations for trying CAM is not dependent on socio-economic status and other cultural factors. Other researchers have found evidence that links 'individuals with higher levels of spirituality, religious belief, or a "cultural creative" stereotype with use of CAM in health care (Hanson *et. al*., 2007).

There are various factors aiding parents' choice of CAM treatment for their children with ASD, one of which is poor access to conventional treatment (Levy et al., 2003 cited in Hanson et al., 2007). Also parents' decision about CAM treatment choice have been ascribed to interaction of parental stress

with the severity of the child's ASD and CAM treatment in the media among others. Christon et al. (2010) found that cost including transportation and time can be an issue in seeking CAM treatment. So far, no treatment or combination of treatments have been found to give best outcomes.

The use of CAM can be a normal pathway in a country like Nigeria where access to conventional medical professionals who are supposed to be the first point of contact is not easy and can be very expensive. The CAM is likely to come from the superstitious beliefs about disability that is viewed as punishment by the gods for parents' failures (Obiakor, 1998). The child's offences in previous life as well as curses from wizards and witches or as punishment for disobedient to the traditional laws (Ogbue, 1995; Obiakor, 1998 Obani 1992) The cultural misconception in the country about people with disabilities may have a significant impact on the education of people with ASD in mainstream school (Fakolade *et al.*, 2009).

3.3.2.2 Medical and Pharmacological interventions

Children with ASD like other children without disabilities still have medical needs and may need health care because of their unique comorbid conditions like epilepsy. The reported prevalence of epilepsy among people with ASD varies from 11% to 39% (Myers and Johnson, 2007). Other comorbid conditions can be treated with drugs as an addition to suitable educational, behavioural and developmental intervention. The most common comorbid symptoms that can be treated by drugs are 'attentional difficulties, hyperactivity, affective difficulties for example anxiety and depression, interfering repetitive activity, irritability, aggression, and self-injurious behaviour and sleep disruption' (Levy *et al.*, 2009). Other comorbid conditions are gastrointestinal problems such as constipation and diarrhoea that have been found to occur in 46% to 85% of children with ASD in the USA. On the other hand in the UK only 9% were found with the problem. (Myers and Johnson, 2007). Parents and teachers need this knowledge as children with ASD may need to be allowed to leave the classroom or it may lead to behavioural issues. Drugs can also be used to treat sleep disturbance in children with ASD and other developmental disorders (Myers and Johnson, 2007).

3.3.2.3 Educational Interventions

Children with ASD need to be taught what other children learn by instinct. (Jordan, 2005).

"*Children on the autism spectrum need strategies that enable them to negotiate the social environment, to communicate their wants and experiences and to understand the communications of other people, as well as strategies that can enable them to learn with and through peers.*"

(Guldberg, 2010 p. 172)

65

Educational interventions for children with ASD deal with 'communication, social skills, daily-living skills, play and leisure skills, academic achievement and maladaptive behaviours.' (Myers & Johnson, 2007) The educational programs used various specific methodologies or strategies to develop the needed skills. However, Kasari & smith (2013) argued that there is a long time between efficacious intervention studies conducted outside schools and the placement in schools. Consequently they recommended that 'interventions should be tested in the context in which they are to be used from the beginning without the many controlled iterations researchers prefer to do away from this context.'

In the USA a systematic review of scientific evidence was engaged to develop agreed guidelines for non-medical interventions for ASD that deal with its cognitive function and core deficits. The Technical expert panel (TEP) that developed the guidelines was made up of large 'multidisciplinary group consisting of experts in psychology, developmental paediatrics, child psychiatry and education as well as parents of children with autism.' (Maglione *et al.*, 2012) I will not go into details here but mention a few interventions that can be used in mainstream schools to address social communication and social skills.

In UK, a similar systematic literature review of articles focussed on 'what works best in the provision of education for persons with autism.' The review that targeted school psychologist considered evidence-based practice from 2008 to 2013 of published educational interventions for children with ASD revealed interventions that could be included into the school days and school staff may need little or more training to implement the interventions. More than half (59%) of the 85 studies included the participation of school staff in the provision and evaluation of the interventions. (Bond *et al.*, 2016)

The behaviour of young people with ASD can be modified by using applied behaviour analysis (ABA) that originated from the principles of learning resulting from experimental psychology research and strategies for teaching based on autism research (STAR). The ABA methods are used to encourage and sustain required behaviour and to discourage maladaptive behaviours that may interfere with learning. Research has proved that early intensive behavioural interventions for young children aided increase in intelligence quotient (IQ) (Myers and Johnson, 2007).

Treatment and education of autistic and related communication handicapped children (TEACCH) referred to as "structured teaching" and involve organisation of the physical environment, expected sequence of activities and visual schedules. 'There is an emphasis on both improving skills of individuals with ASDs and modifying the environment to accommodate deficits.' (Myers and Johnson, 2007) Research by Panerai et al (2009) in Italy confirmed that the TEACCH program is highly effective for the inclusive education of children with ASDs in mainstream schools. This research compared the effectiveness of three different educational approaches for children with ASDs over three years and

found that the TEACCH was more effective than other individualised program not designed for children with autism. The TEACCH program can be adapted and has been applied to different countries and situations including mainstream schools. The structured teaching approach is not specific about where education can take place so it is suitable for inclusion. (Panerai et al., 2009)

Communication skills of school-aged children with ASD can be developed using augmentative and assistive communication (AAC). Some of these are the picture exchange system (PECS) sign language and assistive technology (vocal output device) (Levy *et al.,* 2009). PECS was found to be best suited for children in special schools as it can be integrated into the normal management of the classroom. Five studies of the use of narrative 'interventions such as power cards and social stories to prompt behaviours' for 7-13 year olds in various settings found that staff were trained to implement the interventions. The outcome of these interventions that were incorporated into the school day demonstrated an increase in target behaviours and implementation in various settings by school staff. (Bond *et al.*, 2016).

3.3.2.4 Educational placement

The identification and diagnosis of a young person with ASD should be followed by placement at an appropriate school for effective educational intervention programs discussed above (Jordan, 2009).

In the UK pupils with ASD can attend a variety of schools ranging from mainstream primary and secondary schools, a base unit or inclusive unit within a mainstream school, general special school or residential school (Roth, 2012). The practice in a specific type of school depends on the experience and training of the staff, as well as the skills and views of linked professionals. In addition to the features of the school, the attitudes of the staff can lead to a pupil's failure. There are various educational interventions that have been specifically developed for children with ASD either in the UK or started abroad predominantly in the USA. Due to the fact that there is a wide range of needs among children with ASD it is highly unlikely that one intervention will be enough to meet all the needs of a child or suitable for all children with ASD. Hence, schools in the UK tend to adopt an eclectic approach to the educational interventions available (Jones, 2002).

The suitability of the different educational placements has not been supported by enough research evidence. Parents are not satisfied with the degree of choice of educational placements available to them. Some children with ASD in the UK and USA are taught at home (Roth, 2010). However the inclusion of children with ASD in mainstream schools was found to satisfy parents more where there are ASD resource base attached to the school. An investigation of provisions that are in mainstream education placements for pupils with ASD in schools with or without an ASD resource base was commissioned by an LEA in the UK. The data was collected from the school staff responsible for the provisions. Altogether 26 mainstream schools participated, 7 schools with resource base and 19

schools without.   Almost all the staff at the schools with resource base were found to have received ASD-specific training while only the (special needs co-ordinator) SENCOs and less than half of the teachers in schools without resource base had received any ASD-specific training. It is the expertise of staff in the schools with ASD resource base that parents value and contribute to their satisfaction about the schools (Frederickson, Jones, Lang, 2010). Failure of a child with ASD and dissatisfaction with mainstream school may influence parents' choice of educational placement. A recent research in the UK found that at secondary school level, young people with ASD found school 'to be a stressful and anxiety provoking place.' (Humphrey, 2008)

An online survey of parents of children with ASD (n=66) and without ASD (n=59) found that the children were attending schools chosen by their parents. 51% of the children were attending mainstream schools, 25.5% were attending special schools and 9% had a mixture of special and mainstream placement while 13% were either being taught at home or not receiving education at all (Parsons, Lewis, Danson, Ellins, Robertson, 2009) Tissot (2011) found that 707 of 738 parents surveyed who had children with diagnosis of ASD, 79% (584) of the parents reported that the children were attending schools of their choice. However, the parents still have negative thoughts about the process of obtaining the provision; 'what appeared to be significant was the ease or difficulty of coming to an agreement about placement.'

3.3.2.5 Inclusive Education for young people with ASD

Many young people with ASD are being educated in mainstream school now more than in segregated settings. When young people with ASD are among typical children they display more social behaviour than when they are with their peers who have ASD. They are able to interact with positive role models and be part of the community as they will be as adults. (Eldar, Talmor, Wolf-Zukerman, 2010) The practice of inclusive education is faced with significant challenge due to the main features of ASD and the behaviours linked to them (Robertson, Chamberlain, Kasari, 2003; Hendren, 2003 cited in Segall and Campbell, 2012). Recent study in Australia of key stakeholders' perspective into the practice of the inclusive education policy regarding these young people found that the school staff knowledge and understanding of autism were considered as a key factor in the success of their education. (Roberts and Simpson, 2016)

Jordan (2005) argued that for young people whose autism symptoms are severe and need specialist support resource bases can be used to meet their needs in mainstream schools. 'The child with ASD belongs to his peer group teacher but has the support of staff with expertise and a "haven" in which to recover when needed.' She suggested that it is through understanding of children with ASD during interactions in classroom that teachers can grow skills and knowledge that can enhance their teaching of all children.

In Nigeria, young people with ASD can be educated in mainstream schools with or without inclusive unit that accommodates children with all types of SEN or in special schools with or without boarding facility. All the ASD-specific schools were established by parents of children with ASD and they are privately run so out of reach of most of the parents.

3.3.2.6 Strategies for Pupils with ASD in mainstream schools

From the previous section it is obvious that that there are specific strategies that can aid the removal of the barriers to learning for children with ASD in mainstream schools and enhance their presence, participation, acceptance and achievement. (Humphrey, 2008) The evidence-based strategies that teachers can use to ease the inclusive education of children with ASD in classroom were identified by Humpreys (2008) from research and professional knowledge. Teachers need to challenge stereotypes and raise expectations, help maintain routines, promote peer understanding, and assist to develop social skills as well as adapt academic subjects. Some of the key principles recommended for educators are:

Make abstract concrete – for example by providing visual cues and prompts

Provide structure and predictability   by using consistent opening and closing formats

Provide scaffolded language support- such as providing language models and scripts

Provide multiple and varied learning opportunities- e. g. using multisensory techniques

Include 'other'- focussed activities by highlighting peer's preferences

Program in a sequential and progressive manner – for example simplifying complex behaviours into specific skills

Provide opportunities for generalisation- for instance, by providing activities that can be carried out in the home as well as in school

(Kransy, Williams, Provencal and Ozonoff, 2003)

Crosland and Dunlap (2012) argued that most of the studies on effective strategies for children with ASD has been conducted in contexts like clinic or out of classroom. Therefore there is need for more research in 'typical settings and contexts that students contact across the school day.' They suggested that the researches should cover broad range of students with ASD from primary to secondary levels and various behaviour and intellectual difficulties as this will allow the identification of strategies that are effective for all students regardless of age or grade.

3.3.3 Psychological theories of ASD

Having discussed the behaviours that characterises children with ASD and are used in its diagnosis, I will now discuss the theories that explains them. The knowledge of these theories could help the teachers understand and predict the behaviours of the individual with ASD as they interact with them in the classroom. Five different theories referred to as the 'big ideas' (Frith, 2008) have been put forward to explain ASD in all individuals with the condition (Baron-Cohen, 2008). The theories are executive dysfunction theory, weak central coherence theory, mindblindness theory or theory of mind, empathizing-systemizing theory and magnocellular theory. The theories are evaluated by their scope that is by how much they cover the characteristics of ASD, testability, explanation of deficits and skills, universality, specificity and developmental trajectory of ASD (Roth, 2012). The experimental tests done to make predictions about the outcomes of the theories are not discussed in details here as the teachers do not need them and can read about them in literature if interested.

3.3.3.1 Executive dysfunction theory

'Executive function (EF) is defined as the ability to control.' The individuals with ASD are unable to create, execute or change plans (Baron-Cohen, 2008). The inability to control leads to getting stuck, captured by incidentals, lack of foresight and planning and lack of inhibition that results in socially unacceptable behaviour (Frith, 2008). The executive dysfunction affects other brain systems giving rise to difficulties with common situations in everyday life. The theory explains the restricted repetitive behaviours exhibited by people with ASD.

The theory has both strengths and weaknesses. As far as the scope is concerned the theory did not explain difficulties with social interaction and communication. The tests done so far to prove the existence of the theory revealed that this behaviour is not specific to ASD and it cannot explain the behaviour of everyone on the spectrum. (Lopez, Lincoln, Ozonoff, Lia, 2005). The strength of the theory is the ability of people with ASD to focus on one task while restraining others (Baron-Cohen, 2009). The teachers' knowledge of this ability in children with ASD will enable them understand the impact of EF on the everyday life of the children with ASD

3.3.3.2 Weak central coherence (WCC) theory.

This theory explains the ability of people with ASD to process information from the environment in details instead of combining them together to make a coherent global picture. A strong central coherence will see a drawing instead of lines and hear a sentence instead of words (Frith 2008). A

weak central coherence does not influence what is set inside a context hence the pieces set inside are considered the same in different contexts. Test of WCC in people with ASD show that they 'favour a strategy that automatically focuses on details (Happe, 1997). This detail-focussed processing style applies to hearing and language and may also be the reason for sensory hypersensitivity in children with ASD. (Frith, 2008; Baron-Cohen, 2009). The WCC theory explains 'islets of abilities' found in people with ASD sometimes referred to as savant skills (Baron-Cohen, 2009). However the restricted repetitive actions of people with ASD can also explain the attention to details that can come with practice (Frith, 2008).

The WCC theory accounts for the known features of ASD. The processing of information for details is considered a cognitive style rather than a deficit. It is a preference for processing and does not stop people with ASD from processing in a different way (Happe & Frith, 2006). The processing style is specific to ASD.

3.3.3.3 Theory of Mind

The theory explains the 'ability to put oneself into someone else's shoes'. The theory initiates that children with ASD are delayed in developing theory of mind. Due to their inability to imagine the thoughts and feelings of others they are unable to predict their actions (Baron-Cohen, 2009). The delay leaves them with mindblindness resulting in confusion about other people's unpredictable behaviour that they can find sometimes frightening. In terms of scope of the theory, mindblindness has been tested several times and is not found in all people with ASD. People with other disabilities also display mindblindness by failing the tests designed to test the theory (Frith, 2008). The difficulties that children with ASD have with social interaction can be explained by the theory of mind as social interaction demands the understanding of the expectations of others in a subtle way. The theory of mind is less applicable to the restricted repetitive behaviour. However, Baron-Cohen (1989) suggested that the repetitive actions and predictable interest may be a compensation for not being able to understand other people. Theory of mind difficulties are found in adults and children with other psychological conditions (Roth, 2012) therefore it is not specific to ASD. It is important for teachers to know the difficulties associated with this theory as it may affect the behaviour of children with ASD in the classroom.

3.3.3.4 Empathizing-systemizing (E-S) theory

The empathizing and systemising theory explains ASD as a cognitive profile in which deficits and strengths are combined in two independent dimensions of empathy and systemising (Baron-Cohen, 2009). 'Empathy is often defined as a way of unconsciously copying the feelings of another person' (Frith, 2008). The empathy can be cognitive which is mindreading or affective that is having

appropriate response to others feelings. The systemising is used to describe the tendency of people on the spectrum to 'analyse or construct systems' (Roth, 2012). The theory is also known as 'extreme male brain theory'. Female and males empathise differently, tests of this theory have shown that while females are better at empathising the males are better at systemising (Baron-Cohen, 2009). People with ASD have low empathising (E) and high systemising (S) profile. Survey at autism research centre (2009) using the empathising quotient (EQ) and systemising quotient (SQ) 62% of the people with ASD exhibited the low E and high S pattern and they all have AS or are high functioning autistic (HFA) (Baron-Cohen, 2009). Wheelwright *et al*. (2006) found typical people who also have the same profile as the people with ASD. The social and non- social aspects and symptoms of ASD are explained by this theory. Similar to WCC, systemising pay attention to details but unlike WCC systemising uses the attention to details to understand systems which is a strength. This is a cognitive style and strength that teachers can use in their teaching of children with ASD in the classroom.

3.3.3.5 Magnocellular theory.

This new neurological theory has only been tested using psychological methods hence the reason for including it in psychological theories. The theory proposes problem with the brain's visual pathway that processes motion (Baron-Cohen, 2009). The theory is criticised for concentrating on the visual sense because ASD affects other senses as well. The attraction of children with ASD to objects that move such as trains and objects that spin counteracts the prediction that they are unable to process motion. It has been proved that magnoculleluar abnormalities exist in other people without ASD so it is not specific to ASD. There is no need for teachers to know about this theory as it is only useful for research.

From the five theories discussed above the teachers should be familiar with the theory of mind, the weak central coherence and the executive dysfunction. These three theories are chosen because as explained above the empathising-systemising theory is similar to the theory of mind and the weak central coherence and serve the same purpose in the cognition of people with autism (Frith, 2004). Jordan (2005) argued that the 'learning styles and cognitive profile of students with ASD challenge professional assumptions about teaching and learning more so than any other group of learners.' (Humphrey and Symes, 2011)

3.4. Impact on the management of young people with ASD

The above sections on the management of young people with ASD revealed that decisions on interventions are made by parents. From the beginning of seeking treatment or not seeking treatment for their child with ASD, it is the parents that are choosing the path to follow. Humpreys

(2008) argued that in order for schools to encourage the learning and participation of all learners, the important constituents required are partnership with parents and the wider community in which the school is situated.

3.4.1 Parents

There are social and demographic factors that can influence the parents in seeking and receiving diagnosis for their children. In research carried out in the UK by Russell *et al.* (2011) 13,981 children were followed by Avon Longitudinal study of Parents and Children (ALSPAC) of which 71 that were formerly diagnosed with ASD according to ICD-10. The undiagnosed children who exhibited ASD symptoms early in life were identified from autistic traits measured between ages 2.5 and 4. The research revealed that social and biological factors can influence parents to seek diagnosis in hospital. The gender of the child is a factor as more boys were diagnosed than girls, the ratio of 9:1 which may be due to the large number of boys in the sample than in the general population. The mother's age and delivery position was linked to the diagnosis as first born child is less likely to receive a diagnosis. Maternal depression may also result in lack of ASD diagnosis. The research found that maternal class and marital status   as well as ethnic origin were not significant factors in the diagnosis of the children with ASD.

3.4.1.1 Impact of Teachers' knowledge of ASD

The above educational interventions and strategies that schools can use to manage children with ASD in various settings including mainstream schools lead to the discussion on the impact of the teachers' knowledge on their inclusive education. About 50% of young people diagnosed with ASD in the USA were found to be high functioning that is average to above average intelligence (Fombonne, 2005). The young people with the mild symptoms of the condition that are in mainstream schools may be unknown as ASD is described as 'hidden' disability with no physical features to identify people with the condition (Barnard *et al*., 2000). It is highly unlikely that most of these children would have been identified and the teacher is the first professional they will have contact with. The teachers in mainstream schools need specialised training to enable them identify and understand the cognitive styles of people with ASD and use their strength in meeting their individual educational needs. (Jordan, 2008; Syrioipoulou-Delli *et al*., 2012)

Starting with students in teacher training college, a Canadian study of teachers who received School Support Program-Autism Spectrum Disorder (SSP –ASD) training in a teacher-training programme revealed significant increase in perception and technical knowledge of ASD. The teachers' attitude towards their students was favourable and their level of anxiety and stress reduced. This study of university students undergoing teacher training in Canada can happen anywhere in the world as the

characteristics of students with ASD are the same and the effect of training on the teachers who may have no knowledge or experience are likely to be the same (Leblanc *et al*., 2009). Although the culture of the people may influence the identification of the young people with ASD due to the way the behaviour is perceived in different cultures but training may mitigate this effect.

For the teachers that are already teaching, there was an observed need for professional development for educators and support staff. Research was carried out in a school district in the USA where the number of young people with High- functioning ASD (HFASD) was found to be increasing fast for their effective inclusion. Professional development was needed by the educators to understand how to give instructions to the young people with HFASD, the specific support needs of the individuals and good outcomes in behaviour, social and academic developments (Sansosti and Sansosti, 2012). Segall and Campbell (2012) found that special education teachers and school psychologists have more experience, training and knowledge than the general classroom teachers and the administrators.

In the UK, research found that the tensions experienced by teachers of pupils with ASD in mainstream schools is intrinsically shaped by the ASD-related behaviours exhibited especially those relating to difficulties with social and emotional understanding. The teacher- pupil relationship was conceptualised as a living system made up of the individuals and the way they represent the relationship. Included in the system is the processes of exchanging information between the individuals relating and the influence from external source that the system is embedded in. The tensions define 'the quality of the transactions and interactions between the teachers and the pupils with ASD.' (Emam and Farrell, 2009). The teachers' view of the support necessary for these pupils are dependent on the tension and the teaching assistants who helped the teachers to manage the tension. Although the research was qualitative and small involving only 17 pupils but it shows the inclusive practice for pupils with ASD. The research assumed the ecological systems approach and developmental systems theory to study the teacher-pupil with ASD relationship. (Emam & Farrell, 2009) The research confirms previous author who argued that the tensions shape teachers' perception of support for pupils with ASD (Jordan, 2005)

3.5 Attitude of Teachers towards young people with ASD

Attitude of teachers towards young people with ASD has been identified as an important factor in their inclusion into mainstream schools. The attitude of the teachers is due to their level of knowledge and understanding of the characteristics of the children with ASD. Cook (2001) found that young people with SEN that teachers perceive as mild and with hidden disabilities like ASD are highly likely to be rejected by their teachers. The investigation of the attitudes of 70 general education teachers of inclusive classrooms was part of a larger investigation of teachers' attitudes

towards pupils with disabilities in inclusive classrooms. The teachers' attitudes were in four categories of attachment, concern, indifference and rejection. The pupils who were considered as pleasure to teach were in the attachment category while pupils that are often overlooked are the ones in the indifference group. The pupils in the concern category tend to receive personal attention from their teachers who feel that that their efforts can bring about positive or negative outcomes while the students in the rejection group may have social, behavioural and attitude problems as well as be low achievers. The negative attitude of teachers towards young people with ASD is likely to have a damaging impact on them (Hannah and Pliner, 1983, Mcgregor and Campbell, 2011). Cook (2001) argued that in fully inclusive schools, more pupils with hidden disabilities may be rejected by their teachers due to the presence of more pupils with behaviour difficulties. The teachers' limited understanding of HFASD was identified as the most significant barrier to inclusive education of young people who may have the condition (Sansosti and Sansosti, 2012).

On the other hand, a study of teachers' relationships with included students with ASD revealed that the students formed 'multidimensional relationship with their general education teachers.' The relationship depend on the behaviour exhibited by the students and the level of inclusive education in the classroom. The teachers' perception of their relationship with the included students with ASD is positive but with more display of behaviour problems the quality of the relationship decreased. The status of the child with ASD among his peers also affected the quality of the relationship with the teachers (Robertson *et al.*, 2003). The study was carried out from the teachers' perspective that may not reflect the students' feelings about the relationship with the teacher. The included pupils also have individual educational plans (IEPs), hence the teachers are aware of their SEN category so they are not 'hidden' as above.

Similarly, research into educators' challenges of including children with ASD in Canada found that 'teachers found it difficult to apply best practices of inclusion when there was a child with ASD within their mainstream classroom.' The teachers found it difficult to understand and manage the behaviours displayed by the children with ASD. The findings of the research also revealed that teachers found it difficult to modify the curriculum and instructions to achieve best practice. The level of knowledge of ASD among other teachers, parents and peers also constrained the effective inclusion of children with ASD. (Lindsay, Proulx, Thomson, and Scott, 2013)

Therefore I will argue that, teachers need knowledge and understanding of ASD to meet the specific needs of the children with ASD in the classroom and is necessary for their effective inclusive education as well as promote relationship with other teachers and peers.

In the same way, large class sizes in schools in Nigeria and lack of identification may lead to teachers rejecting the pupils with mild ASD who may display behaviour difficulties either because of their autism or sensory difficulties that teachers may not be aware of without the knowledge of ASD.

Teachers' awareness and knowledge of ASD may change their attitude toward their pupils with ASD (Friedlander, 2008).

3.6 State of global research into inclusive education of people with ASD

Most research into inclusion of young people with ASD in mainstream education have been carried out in North America, Europe and Australia (Lindsay *et al.,* 2014; Humphrey, 2008; Humphrey &and Lewis, 2008; Symes and Humphrey, 2010; Harrower and Dunlap, 2001; Crosland and Dunlap, 2012).

Research into the inclusive education of children with ASD has been conducted mostly with young children of pre-school age (Harrower & Dunlap, 2001; Guldberg, 2010) and there is not much rigorous research into the impact of inclusive education of young people in middle and high schools or secondary schools (Harrower and Dunlap, 2001; Ferraioli and Harris, 2011). In the UK Barnard et al., (2000) observed that about 50% of young people with ASD with statements of SEN are educated in mainstream schools but by 2010 (Waddington and Reed) reported that they had increased to 60%.

Studies currently available reveal negative information about the impact of inclusive education policy for young people with ASD. The secondary phase of schooling for pupils with ASD is confronted with various challenges that can result in collapse of school placement (Barnard *et al*., 2000; Humphreys, 2008). A study of school factors that is associated with young people with ASD who are in mainstream secondary school all the time they are at school discovered that they have high levels of behavioural and emotional difficulties (Ashburner *et al*., 2010). However they tend to improve on their functioning skills over the year. While pupils with autism made progress with their emotional and behavioural difficulties, pupils with Asperger or milder form of autism made progress with their social interactions (Osborne and Reed, 2011). There is some observed progress by young people with ASD in mainstream schools but pupils in specialist placement made more progress (Reed *et al*., 2010).

Investigations of pupils who were diagnosed in early childhood with ASD but who achieved optimal outcomes (OO) and no longer meet the criteria for ASD were found to be similar in academic abilities to their typically developing peers. The children and adolescents who achieved OO were of high average and above with no academic difficulties that will require intervention. (Troyb *et al.*, 2013). All the participants had documents to confirm their diagnosis before the age of 5. This shows that there are individuals who were diagnosed with ASD but who were able to achieve OO. At present there is no study to explain how this was achieved and the interventions that made it possible.

Research of general population in Northern Ireland into the awareness, knowledge and perceptions of autism revealed high level of autism awareness. This research that surveyed 1204 people found that over 80% of them were aware of autism and 60% knew someone with ASD in their family,

friends and work colleagues. 'Generally knowledge of strengths and challenges faced by individuals with ASD was relatively accurate.' The results of the survey indicate that the autism awareness campaign locally and globally have been successful. However, there is till need for accurate information about interventions and those responsible for providing services. (Dillenburger, Jordan, Mckerr, Devine, Keenan, 2013) From the large population surveyed in the research, there is indication of good awareness of ASD and need for knowledge of the management of the condition.

3.7 State of research into ASD in Africa

There is very little research into the education of children with ASD in Africa. The medical professionals were only considering treatment as most children with ASD presented to them are usually the ones at the severe end of the spectrum with little expressive and receptive language as well as learning difficulties. (Bakare and Munir, 2011) This is due to perceived stigma around SEN in general.

Abubakar, Ssewanyana and Newton (2016) found from a review of published studies from Africa that the data from the continent is very limited and are mainly from Nigeria and South Africa. They found only one single population level study targeted the documentation of the prevalence of ASD in Africa. They found no single case-control study directed at investigating all-embracing 'potential risk factors in Africa. The intervention studies were not reliable because of the limited sample sizes that were mostly cross-sectional and without 'measurement or evaluation of long-term impact.' This state of research into ASD in Africa may be due to lack of expertise in many countries in the continent or and lack of resources to conduct research in ASD. (Abubakar *et al*., 2016)

Peer-reviews of articles on research of ASD in Sub-Sahara Africa found that 'clinical service development, education and training, research and policy' revealed that despite being the second biggest continent next to Asia it has the lowest number of articles (120). This is in comparison with North America with 11,569 and North Africa with 121 articles. (Franz, *et al.,* 2017) The focus of 'clinical interventions, service developments, research and policy work for children and adolescents' has been communicable diseases and reduction of infant mortality. (United Nations, 2015). A shortage of research on ASD was revealed in Sub-Sahara Africa as previously observed by Elsabbagh et al., (2012).

One of the areas that have not been explored in ASD is the inclusive education of people with ASD.

> "We were struck by the absence of peer-reviewed data on early intervention
> and education-related aspects of ASD. We were not able to identify any articles
> on early intervention programmes, types of schools, access, training, curricula,

in-school ASD interventions or on health/ education systems interfaces*.”*

(Franz, *et al.,* 2017 p. 22)

3.8 State of research into ASD in Nigeria.

The section above on ASD in Africa revealed that most of the research carried out on people with ASD in Sub- Sahara Africa has been done in Nigeria and South Africa, however reports on ASD in Nigerian children are very scarce. (Lagunju *et.al.,* 2014) Almost all the research on ASD in Nigeria has been carried out by medical professionals and little has been done from an educational perspective on the inclusive education of young people with ASD in mainstream school (Franz, *et al.,* 2017). A community-based sample of 85 young people between 2-18 years investigated for ASD in Lagos, Nigeria using the DSM-5 revealed 34.5% of those suspected of having autism met the criteria. All the participants were presented to the medical team by their parents. Some of the participants were diagnosed with Down's syndrome and ADHD. The research found that the community understanding of ASD is still very poor. (Oshodi, Olagunju, Oyelohunnu, Campbell, Umeh, Aina, Oyibo Lesi and Adeyemi, 2016) ASD was included as a category of SNE for the first time in the National policy on Special Needs education in Nigeria in 2015.

Potent illustration of the current situation regarding approaches to ASD in Nigeria can be drawn from the popular press. Writing in the Nigeria newspaper, Vanguard on February 26 2017, The Coordinator of Autism Associates, Mr. Okey Martins reported:

> "Many children in Nigeria with autism are either not diagnosed or misdiagnosed. They either end up being hidden at home or clubbed with the deaf, dumb or mentally retarded children. In rural areas where there are no psychiatric hospitals, majority end up on the streets as insane fellows."

> "Martins lamented that today there are no schools for children with ASD. Although there had been attempts by parents of autistic children to set up schools to cater for children with autistic like challenges, lack of fund and limited skills hindered the vision."

In the same article, a Consultant Psychiatrist Dr. Grace Ijarogbe at the Child and adolescent centre, Federal Neuro Psychiatric Hospital Oshodi, Lagos reported that people in the community ascribe autistic symptoms to witchcraft and evil activities.

The young people with severe symptoms of ASD may have their needs met at the hospitals or special schools provided by the government and private schools set up by parents of children with ASD and individuals who still believe that only children of the rich have ASD so there is money to be made from such schools. However young people with the mild form of ASD are not identified because

there are no means of identifying them. The tensions and dilemma of participation against protection and identification versus stigmatisation may make parents prefer non-identification especially for young people with the mild symptoms of the condition who may appear to cope at school.

Summary

"Understanding the mechanisms at work and the contexts in which they operate provides a theoretical understanding of what is going on which can then be used to optimize the effects of the innovation by appropriate contextual changes, or by finding alternative ways of countering blocking mechanisms, or even by changing the innovation itself so that it is more in tune with some of the contexts where positive change has not been achieved."

(Robson, 2002 p.39)

In the previous chapter, inclusive education was recognised as a process of transforming mainstream schools including teachers and the professionals involved in education to provide quality education for all children by removing identified barriers to their learning and participation in mainstream classes. The mechanisms identified by the WHO (2010) as crucial are knowledge and attitudes of the service providers. This chapter on ASD identified the knowledge that the education service providers need to have about young people with the condition and the reasons for it. The understanding of the characteristics of young people with ASD ought to guide the teachers' practice of inclusive education for them.

As suggested by Barnard *et al*. (2000) early diagnosis, identification and intervention are fundamental to give all people with ASD a 'better chance in life.' There are various contextual factors and people that can influence all these processes of whom the most important are the parents and teachers of the children. The external influence from knowledge and attitude of the key individuals outside the school around the child with ASD will impact the parents' choice of the path way for the management of the child. Since ASD is not uncommon in Nigeria, people around young people with mild symptoms of ASD in mainstream school need their knowledge of the condition to make decisions regarding the identification and interventions needed to manage the lifelong symptoms

effectively. The level of knowledge and attitude from cultural beliefs to disability in general can influence their practice.

There may be other mechanisms that have not been identified that may be at work in this particular situation and their operation depends on the context. (Robson, 2002) This research explored the impact of the level of knowledge of ASD among the teachers and the other professionals involved in education of children with ASD and their practice. Finally, from the different social strata around the child with ASD the practice of the professionals is examined for the other mechanisms at work and the expected benefits and outcomes of inclusive education that may encourage the participants in their practice are clarified.

4. **Methodology and research methods**

4.1 Introduction

In the two previous chapters on inclusive education and ASD, knowledge and attitudes of people in the environment of the young people with SEND have been identified as mechanisms that can impact what happens to them in the classroom in the practice of inclusive education. While knowledge can come from qualifications and experience, attitude is shaped by beliefs and values from culture and experience. This research first explored the level of knowledge among the teachers who are in the classroom and interact with the young people face to face. Then the other mechanisms in the context are identified through the impact of the knowledge and attitudes of the parent and other professionals in and outside school from their professional practice.

Having established the focus of the research from the research questions and the literature review, in this chapter on methodology and methods, I am going to describe the methodology and methods employed for the research with justification for choosing them. The chapter starts with the aims and purpose of the research that is followed by the research questions and the philosophical approach. The rationale choice of the paradigm used in answering the questions is explained. From the choice of the research design of case study; the mixed methods chosen to collect and analyse the data are quantitative, qualitative and information from documents from Nigeria that will be included in the discussion chapter.

The experience of my daughter who has mild ASD and attended mainstream schools in the UK led to my thoughts of what happens to a child like her in a different context (country), the country of my birth. As a Nigerian who received my education up to the first degree level in the country and can speak and read in my mother tongue, I know and understand the influence of the culture including beliefs and values of the people on every social activity including education. I have worked with NGOs to support education of children with SEN in Lagos state, by training parents and teachers sometimes using their mother tongue as some of the parents are uneducated. I wanted to know about the experience of children and young people with mild ASD in mainstream schools in that particular context.

4.2 Aims and Purpose of research

The aim of this research is to fill the gap in the research on inclusive education of children with all types SEN from the experience of young people with ASD in mainstream schools in Lagos state, Nigeria. The study explored the impact of the knowledge and attitudes of the key people including teachers around a young person. The key people are the professionals in the different social systems

of the young person and can be involved in the education of the young person either directly in the classroom and school or indirectly. The level of knowledge among the teachers who are the ones to implement the inclusive education policy in the classroom is singled out for descriptive study.

The purposes for research into education can be divided into 'educational research' and 'education research.' While the former can influence policy and practice the latter has significant value but may not always influence practice (Whitty, 2006; Saunders, 2007). This research can be classified as 'educational research' because it seeks to improve policy formulation and implementation in the practice of inclusive education in Nigeria by identifying the mechanisms that constrain the process.

The research is exploratory as it seeks to explore the impact of the knowledge and attitudes of key people around a child with ASD in mainstream school on their practice of inclusive education. The research wanted to find out 'what is happening in little-understood situations' and look for new insights as well as produce ideas for future research. (Robson, 2009) The other mechanisms that may be present in the particular context of Lagos, Nigeria and could impact the process of inclusive education may be revealed.

4.3 Research questions

Having established the aim and purpose of the research above, the following research questions (from literature review) will provide 'a picture of what is to be investigated.' (Denscombe, 2011)

What are the knowledge, attitudes and practice of key individuals (teachers, parents and professional) regarding inclusive education and autism?

How might these impacts on the experience of the young people with ASD?

Research is defined as a 'systematic way of asking questions, a systematic method of enquiry.' (Drew et al., 2008) My research questions stem from the desire to know how the teachers' knowledge of ASD and attitude impacts the outcome of the inclusive education practice for children with mild ASD in mainstream schools. The initial phase of the study is required to know the level of knowledge among the teachers as have been done for the medical staff and students. The personal factors (gender, age, experience and qualification) that can have an impact on their level of knowledge are considered. The research questions were approached through a paradigm.

4.4 Research Philosophical Approach

"A paradigm is a way of looking at or researching phenomena, a world view, a view of what counts as accepted or correct scientific knowledge or way of working , an 'accepted model or pattern.' (Kuhn,

1962: 23)" There are several paradigms used in social science and educational research (Robson, 2011; Cohen *et al*., 2011, Thomas, 2013).

The philosophical framework that is used for a research influences the research methods (Creswell & Plano Clarke, 2007) hence this methodology chapter starts with the choice of the philosophical framework for the research. Denscombe (2010) suggested that philosophical assumptions make up the 'foundation' of the research:

they underpin the perspective that is adopted on the research topic;

they shape the nature of the investigation, its method and the questions that are asked;

they specify what type of things qualify as worthwhile evidence;

they point to the kind of conclusion that can and cannot be drawn on the basis of the investigation.

(Denscombe, 2010 p. 117)

Hitchcock and Hughes (1995) suggested that ontological assumptions (assumptions about nature of social reality) led to epistemological assumptions (research and enquiry into nature of social reality) (Cohen *et al.,* 2011). The two main philosophical positions linked to these assumptions are positivism and interpretivism. However, post-positivist research philosophy of critical realism and pragmatism are other approaches used by social researchers who were not satisfied with philosophical approach of positivism or interpretivism on their own (Denscombe, 2010).

4.4.1 Positivism

Positivists made the ontological assumption that social world just like natural world is made up of 'patterns and regularities, causes and consequences' that exist independent of recognition by people. This objective reality is there to be discovered not created by researchers. Positivists also assume that scientific methods can be used to acquire our knowledge of 'what it is' (Denscombe, 2010). Theories are very important however without observations to verify them they are not credible. According to positivists, the tools used for social research must be reliable, must not impact, alter or disturb what is being measured. In the study of human behaviour positivism is less successful because of the very complex nature of humans. In contrast to scientific experiments that occur in closed system, contexts like classrooms are open system and can be influenced by external factors. The processes of teaching, learning and human interactions pose great challenges to the researcher using the positivist approach (Cohen *et al*, 2011).

4.4.2 Interpretivism

In contrast, the interpretivists assume ontologically that social reality is not 'out there' and is constructed by people in different ways (Thomas. 2013). The social world cannot be measured touched or observed as they are not concrete materials and reality depend on people who believe, relate and interpret it. Humans may behave differently from normal when aware that they are being studied while materials like chemicals studied by natural sciences do not change. There is also an epistemological assumption that 'objective knowledge is not possible' because social research can be influenced by the researchers who are studying the world they are part of (Denscombe 2010).

This is an approach used and applied by social researchers who tend to focus more on the practical usefulness of their research than the philosophy underlying it (Robson, 2011). The 'research problem' is taken as starting point and the approach or method depends on the outcomes in practice. The researcher can be eclectic in choosing methods. The underlying ontological and epistemological assumptions made by pragmatism about social reality and knowledge depend on its usefulness. Onwuegbuzie and Leech (2005) regarded 'pragmatic researchers' as those who use and recognize the value of both quantitative and qualitative for their research. Hence social reality is perceived as 'out there' outside the individual and can also be 'in the mind.' (Denscombe, 2010).

4.4.3 Post Positivism

Critics of positivism reject the assumption that 'the researcher and the researched person are independent of each other.' (Robson 2002, p. 27) However, post-positivists accept 'that the theories, hypothesis, background knowledge and values of the researcher can influence what is observed.' (Reichardt and Rallis 1994, cited in Robson, 2002) Post-positivist also assumes that one reality exists that is fallible and cannot be known for certain due to the limitations of the researcher. (Robson, 2002).

The constant relationship between variables or events that positivists look for can be found easily in the natural world but in the social context it is very unusual to find the 'constant conjunction'. The failure of the social sciences to produce 'scientific' laws resulted in the conclusion of some that scientific approach is not suitable for social science.

4.4.4 Pragmatism

This is an approach used and applied by social researchers who tend to focus more on the practical usefulness of their research than the philosophy underlying it (Robson, 2011). The 'research problem' is taken as starting point and the approach or method depends on the outcomes in practice. The

researcher can be eclectic in choosing methods. The underlying ontological and epistemological assumptions made by pragmatism about social reality and knowledge depend on its usefulness. Onwuegbuzie and Leech (2005) regarded 'pragmatic researchers' as those who use and recognize the value of both quantitative and qualitative for their research. Hence social reality is perceived as 'out there' outside the individual and can also be 'in the mind.' (Denscombe, 2010).

4.4.5 Critical Realism

Hammersley (2009) argued that the aim of critical realism is to 'diagnose what is wrong with some institution or society, and sometimes also to identify the remedy.' However the values that are used for judging the phenomenon are not objective or neutral as research should be. Also theories are not taken as absolute or definite explanation of reality (Denscombe, 2010).

Critical realism is a post-positivist research philosophy that developed from the works of Bhaksar (1975, 1979, and 1986). The limitations of discovering 'true reality' of the world by using scientific methods is overcome by the removal of 'certainty and absoluteness' from the approach (Denscombe, 2010). The social world unlike the natural world is an open system and the individuals are embedded in social systems that can influence them as well as the outcome of the action (Robson, 2002). Critical realism assumes that the real world can be understood through theories developed by social researchers to explain realities and the research methods that are used to collect data are steeped in them. Hence from the critical realist assumptions, the research methods and theories are linked.

For this study I am adopting the critical realist stance which will enable me to explore and criticise the operation of the mechanisms that is the factors under consideration in the practice of inclusive education. If the mechanisms are blocking the implementation of the inclusive education policy then alternatives can be suggested and change can be encouraged (Denscombe 2010). On the other hand, other mechanisms that may be operating in the particular context that are capable of positive outcomes for the young people can be identified as well. The reason for the choice of realism for this thesis is to identify the causal relationships that is the operation of mechanisms in the practice of inclusive education. Critical realism version of realism gives social research an emancipatory purpose by being critical of the society.

The epistemological assumption underlying critical realism states that the real world can be known through theories. Methods used in collecting data are associated with theories. Sayer (1992) argued that 'theory is increasingly recognised as affecting observation itself, so the latter is said "to be theory laden." The role of theory in research is what separates critical realism from positivism. While theory in positivism is discovered from facts collected, in critical realism the interpretation of facts gives theory as the interpretivitist assume that the world cannot be understand objectively. It is

acceptable among critical realists to use natural science methods for acquiring knowledge. 'Critical realism distinguishes not only between the world and our experience of it, but between the real, the actual and the empirical, defining these in a special way.' (Bhaskar, 1975 cited in Sayer, 2000) The real can exist either as natural or social and is an action of objects, their structures and powers. (Sayer, 2000).

The essential aim of critical realism is to explain the "what caused those events to happen?" (Easton, 2010) Critical realists believed research process should be conducted by retroduction and or abduction (Easton, 2010). Sayer (1992) explained retroduction as a "mode of inference in which events are explained by postulating (and identifying) mechanisms which are capable of producing them" (Sayer, 1992 p. 107) 'Retroduction means "moving backwards" and that is what the process involves. It asks "What must be true in order to make this event possible?" (Easton, 2010) The focus of retroduction is the contextual conditions necessary for the specific causal mechanisms to act. (Fletcher, 2017)

4.4.5.1 Realist explanation for experiments

The realist explanation for experiments links the context in which an action occurs and the operation of the mechanisms in the particular context. (Robson, 2011).

Mechanisms

Action

Outcome

Context
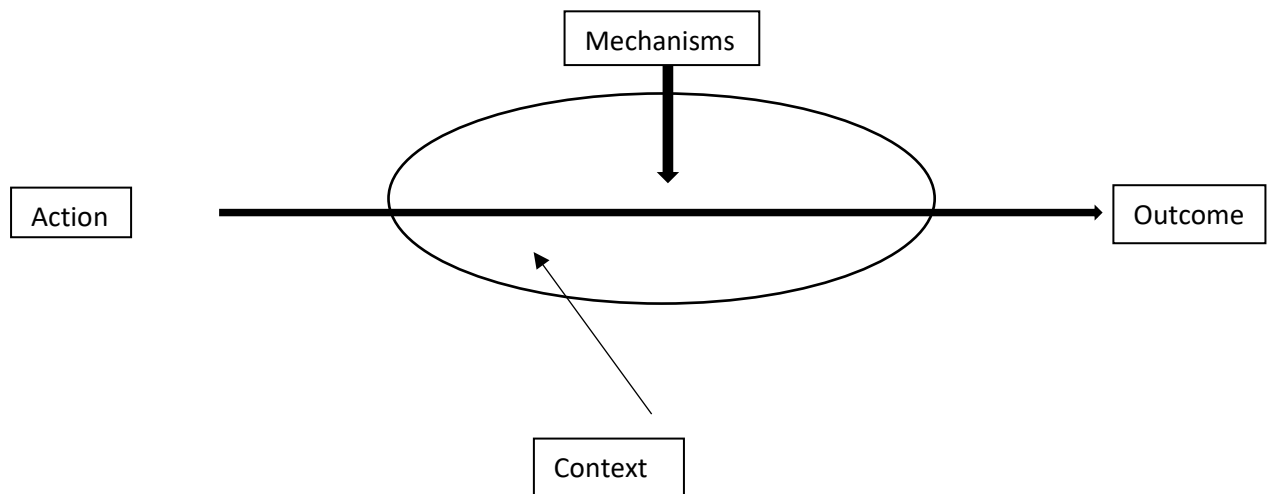
(Fig. 4.1) Realist Explanation (Robson, 2002)

In explaining the role of mechanisms in research Pawson and Tilley (2008) states:

> "Mechanisms describe what it is about programmes and interventions that bring about any effects. Mechanisms are often hidden, rather as the workings of a clock cannot be seen but drive the patterned movement of the hands."

The operation of a mechanism in any particular setting is dependent on the context. The practitioners and researchers who have thorough knowledge of the settings and context are able to suggest appropriate mechanisms. From my previous study of parents of children with ASD in Nigeria (Odunsi, 2012), as a teacher, parent and SENCO in schools in the UK, I have the 'well-developed and intimate knowledge' (Robson, 2011) of children with ASD in mainstream schools and their teachers to know the mechanisms that operate in the inclusion process in classrooms. The placement of children with ASD in mainstream classrooms is often based on the person characteristics of the teacher. The theoretical framework of Bronfrenbrenner's ecological system model (Rosa & Tudge, 2004) also points to the mechanisms that can operate in the interaction between the teacher and the pupil with ASD in the classroom and the social systems in which they are embedded.

4.4.6 Ecological theory of human development

The ecological theory of human development is useful as a model for studying disability in different cultural contexts because it shows how influences at one level drift into other levels (Fig 1.1).

> "The ecology of human development involves the scientific study of the progressive, mutual accommodation between an active, growing human being and the changing properties of the immediate settings in which the developing person lives, as this process is affected by relations between these settings, and by the larger contexts within which the settings are embedded."

> (Bronfrenbrenner, 1979 p. 21 cited in Rosa & Tudge, 2013)

'Proximal processes work in conjunction with the more distal influences in the macrosystem and exosystem'. (Ravindran & Myers, 2012) In the exosystem of Nigeria the local education authority at the state level have the role of monitoring the implementation of the inclusive education policy and the provision of the resources needed for the young people with special educational needs in the schools. The macrosystem embraces the cultural environment in which the person lives and all other systems that affect them. Rosa and Tudge (2013) stressed the fundamental difference between the macrosystem and the other levels of the context. They described the macrosystem as 'embracing the institutional systems of a culture or subculture, such as the economic, social, education, legal and political system.' The cultural beliefs about a health condition influences the families' decision-making about the treatment they seek and their expectations of outcomes.

In this research the action under consideration is the process of inclusive education for children with ASD in mainstream primary school. The mechanisms being considered here are the knowledge and attitude of the teachers and other key individuals and the context is the social systems (microsystem, mesosystem, exosystem and macrosystem) of the child with ASD in Lagos state, Nigeria. From the research, the researcher should discover the ways in which these particular mechanisms have impact upon outcomes relating to inclusion for the child. The outcomes according to the ecological theory (Bronfrenbrenner, 2008) may include e.g. the development of learning competence of the child with ASD, as well as their social inclusion and emotional wellbeing.

The classroom as an open system is a setting where there is no control unlike a laboratory that is a closed system where the experiment is controlled. While the experiment in a laboratory is sealed from external interference the same does not apply in the classrooms that cannot be sealed from external influences. Therefore the future of the events that will occur in the opens system cannot be predicted but the past can be explained by 'establishing the particular configurations that was in existence.' (Robson, 2011)

In the social science knowledge of things come from experience of what is seen, heard and touched that is referred to as empirical knowledge. Analytical strategies of reasoning that transforms experience to knowledge that is reasoning can be inductive that is from observation to theory or deductive that is theory to observation (Thomas, 2013). However the realist use abductive reasoning where the 'theory' is the operating mechanisms that can produce the outcome. The mechanisms that are used at first for exploratory research such as this research are verified and confirmed by successive cycles of experiment (Robson, 2011).

4.5 Research Design

The research design links the research questions and methods of data collection and analysis. The research design is described as a plan that:

"guides the investigator in the process of collecting, analysing and interpreting observations" (Yin, 2014 pp. 28)

Research can be of fixed design or flexible design. In the fixed design the procedures used have been 'tried and tested' and are usually quantitative while in the flexible design the procedure evolves from the results found in the early stages (Robson, 2011).

The traditional fixed design can be experimental strategy in which the effects of one variable on another can be manipulated and measured. The researcher stipulates the details of the design and may 'pilot' the study before the data is collected. The hypothesis is usually tested. On the other hand the non-experimental strategy may not involve hypothesis testing.

The flexible research strategy allows the use of the different methods for data collection and is appropriate for exploratory research. In order to answer the research questions within this study; which focus upon individuals' knowledge of, attitudes towards and practices regarding inclusive education for young people with ASD; a flexible design using mixed methods is chosen.

4.5.1 Design frame

The decision on a design frame for a research involves many components of the research project. The purpose of the research, the theory guiding the research, the research questions, method of collecting data and the sampling strategy are all considered in the design. (Robson, 2002; Thomas, 2009)

There are many design frames that are like 'a scaffold that holds the research in shape and helps to structure it.' Some of the design frames are action research, ethnography, comparative research and grounded theory (Robson, 2011; Thomas, 2013). Others are evaluation, experiment and longitudinal, cross-sectional studies and survey (Thomas 2009). To enable me answer the above research

questions the design frame chosen is case study. The professionals around a young person with ASD in mainstream school are studied in depth to investigate the role of their knowledge and attitudes in their practice of inclusive education.

4.5.2 Case study

Case study is the flexible research design (Robson, 2011) chosen for this research because it allows 'the researcher to "*deal with the subtleties and intricacies"* of complex social situations 'and also use of different research methods (Denscombe, 2007). Having explained the rationale for the mixed methods for the research I will now justify the use of case study design. The definition of case study that is adopted here is that suggested by Simons (2009):

> "Case study is an in-depth exploration from multiple perspectives of the complexity and uniqueness of a particular project, policy, institution, programme or system in a 'real-life' context. It is research- based, inclusive of different methods and is evidence- led. The primary purpose is to generate in- depth understanding of a specific topic (as in a thesis), programme, policy, institution or system to generate knowledge and or inform policy development, professional practice and civil or community action."

(Cited in Thomas, 2012 p. 10)

Case study research focuses upon the exploration and explanation of a key phenomenon, topic or issue. The exploration in case study deals with the key issues touching all those in the setting while the explanation explains the 'causes of events, processes or relationships within a setting.' The cases are selected on the basis of their distinguishing features not randomly as in experiments or large-scale surveys. The criteria for the selection of cases or case must be justified as a necessary part of the methodology. (Denscombe, 2007)

The phenomenon here is the practice of inclusive education regarding a child with ASD in mainstream school in Lagos, Nigeria. The exploratory part of the study investigates the people in the setting and what they do by their practice while the explanation explains the causes of the behaviours revealed. From the case study of this research, the 'how' and 'why' regarding the practice of the inclusive education policy for children with ASD in Lagos, Nigeria can be better understood. Case study research is made up of two parts which are the subject (the case) and the object (analytical frame) that explains the object in details (Thomas, 2012).

4.5.2.1 Identifying the Subject

Three different ways of identifying the 'case' that is the subject of the case study was recommended by Thomas (2012). The local knowledge case that is based on the knowledge of the researcher, the

special or outlier case due to the difference of the case from what is considered the norm and the key case which is an example of a good case. However Yin (2009) suggested a subject may be identified because it is 'representative or typical' of the phenomenon under study. The subject of this case study (child with ASD in mainstream primary school) is identified by local knowledge because it is dependent on my special knowledge of children with ASD in mainstream school in the UK from experience as a Special Needs co-ordinator in a school with ASD provision (base from where children with ASD attend regular classes) and as a parent of a child with ASD.

4.5.2.2 Identifying the Object

The object is the analytical frame within which the case is considered a typical example. This case study is the practice of inclusive education regarding a child with ASD in mainstream school in Lagos state, Nigeria. The object of the case is the exploration of the impact of the teacher's knowledge, and the knowledge, attitudes and practices regarding ASD of other key individuals on the implementation of the inclusion policy for such children in Lagos, Nigeria.

From the literature review no research has been done on how the inclusive education policy in Nigeria is implemented for children with ASD in schools in Lagos State, Nigeria and the experiences of individuals in the children's social ecological systems during the process has not been explored.

The teachers are the ones who will implement the inclusion policy in the classrooms during the process of interaction with the children. Both the teacher and the developing child with ASD are embedded in social systems that have impacts on their interaction in the classroom (Robson, 2002). Although the mechanism being investigated here is the knowledge of the teacher but there are other mechanisms in the context that the interviews of the individuals in the social systems can reveal. The impact of these other mechanisms on the outcome of the inclusion process can be used to explore and understand this process.

This is a single case study of the impact of two mechanisms in the practice of the inclusive education for children with ASD in Lagos, Nigeria. The case study is bounded by place and context.

The rationale for use of case study for this research is to explore in depth the impact of the teacher's knowledge on their attitude and practice of inclusion for children with ASD in mainstream primary schools in Lagos, Nigeria.

4.5.3 Purpose of Case study

Thomas (2012) suggested that case studies can be intrinsic, instrumental, evaluative, explanatory and exploratory. An intrinsic case study is done just out of interest in the case while an instrumental case study uses the study as an instrument. An evaluative case study research can reveal 'how well

something is working or has worked.' The explanatory case study is carried out to explain a phenomenon from the depth of understanding of the relationships and processes in the social world (Denscombe, 2007).

This research is an exploratory research that seeks to know how the knowledge of ASD by the teachers and their attitudes impact the practice of inclusive education of the children with ASD in mainstream primary schools in Lagos, Nigeria. However in the classroom context where the teachers and pupils interact face-to-face, there are many other mechanisms operating that can have impact on the outcome of the inclusive education as well. Research utilising a KAP (knowledge, attitudes and practice) approach has been carried out within Nigeria, primarily within a medical context and using quantitative approaches (Akhigbe & Omuema, 2009; Odusanya *et al.*, 2001; *Oni et al*, 1991). Within this study a qualitative approach, informed by the social ecological model (Brofenbrenner & Morris, 1998) is used to explore a single case in depth.

The rationale for the choice of exploratory case study for this research is that from literature review no research has been done on the inclusion of children with ASD at all. From this study other

4.5.4 Categories of Case studies

Many authors have categorised case studies in different ways (Merriam, 1988; Stake, 1995; Bassey, 1999; de Vaus, 2001; Mitchell 2006 and Yin, 2009) according to purposes, methods and 'shapes' of case studies (Thomas, 2012). Case study design is made up of many different parts (Yin, 2011 Thomas, 2012). Yin (2014) stated that case study designs are made up of five components; research questions, propositions, units of analysis, rationale linking data to propositions and interpretation of findings. Similarly, Thomas (2012) recommended a system of dividing case studies into different types from the classification of the different layers (purpose, approach, process) that make up the design of case studies. The system is adopted in this research to justify the choice of case study type. Once the subject and object of the case study are identified the next layer is the purpose of the case study.

4.5.5 Approach to Case study

Case studies can be used to build theories or to test theories (Denscombe, 2007) as well as being illustrative, descriptive or interpretative. Case studies are used to build theories by developing framework of ideas that can explain the phenomenon being studied.

The ecological systems theory of human development from the PPCT (process, person, context and time) model (Bronfrenbrenner & Morris, 1998) in which both the teacher and the pupils are embedded in other social systems that can impact their interaction in the classroom is tested. The person characteristics of the teacher that includes the teacher's knowledge of ASD should respond to

the pupils with ASD's demand characteristics. The inability of the teacher to respond to the pupils due to the lack or low level knowledge of ASD can block the inclusion process for the pupil with ASD with consequences for learning competence development. This case study can also reveal other mechanisms present in the particular context that can produce the desired outcome (Robson, 2011).

4.6 Rationale for single case study

Case study can be of multiple cases or a single case as in this research. Yin (2012) suggested five rationales for single case designs which are; critical, unusual, common, revelatory and longitudinal case. These rationales are well explained by Yin. Only the rationale for this research will be explained here. The rationale for this single case is the 'common case' because the case study encapsulates the situation of children with ASD in mainstream schools in Lagos state, Nigeria. The literature review has revealed that due to the political and financial circumstances in the country, children whose disabilities are not visible are ignored by teachers due to the different categories of children who qualified for inclusion. Children with mild ASD symptoms fall into this category. This single case study of a child with mild ASD in a mainstream school should also shed some light on the bioecological theory of Bronfenbrenner (Bronfenbrenner & Morris, 1994) PPCT model. It covers the interaction between the pupil in the classroom and key individuals within the social systems in which they are embedded.

From my experience as Head of learning support and SENCO in a school with a provision for pupils with ASD and other schools without in the UK, I know that the external professionals who come into schools to work with a pupil also work with other pupils referred to them in similar ways. Consequently, the practice of the professionals depend very much on their knowledge from their training and experience as well as the Code of practice for SEND. Here in the UK they are aware that their reports can be challenged by school and parents since there is legislation to back the practice. However in Nigeria where there is no such legislation, the attitude of the professionals towards SEND can influence their practice.

From the PPCT model the time aspect is covered by fact that the research is a snapshot. The case is bound by place and time (Thomas, 2011). The time is a period of about two to three years as the first part of the data was collected about two years before the data for the second phase. In the Nigerian term there has been no change at all in the education sector that could have an impact on the case being studied. The increase in the number of people who are internally displaced because of the terrorist insurgency has no effect on the situation in Lagos state as none have been moved to Lagos state. The change of government has not affected the policy on education.

4.6.1 Case study data collection

There are many sources of evidence that can be exploited for case study. Some of the sources can be 'documentation, archival records, interviews, direct observation, participant-observation and physical artefacts.' (Gillham, 2000; Yin 2014) Yin (2014) argued that 'a major strength of case study data collection is the opportunity to use many different sources of evidence.'

Triangulation is the approach from different methodological perspectives and their different strengths and weakness can converge to give a true picture of the research. There are four types of triangulation suggested by Patton (2002); data triangulation, investigator triangulation, theory triangulation and methodological triangulation. This research used methodological triangulation by collecting evidence from documents, interviews and survey by questionnaire.

The choice of methods of data collection depends on the kind of information needed, from whom and the context of the research. Information can be collected by words using interviews or by observation that can be structured observation or unstructured observation. During structured observation the observer watch for particular kinds of behaviour while in unstructured observation the observer watches from a stage. (Thomas, 2009)

4.6.2 Quantitative method.

A range of data that could be presented in a numerical form were collected from participants within the quantitative phase of the study. It can be measured precisely and the data can be subjected to statistical analysis. Relationships between the independent and dependent variables from their interactions can be investigated (Hammersley et al., 1994). The research tools and design are testable and can be validated. The research can be repeated, confirmed and compared with results from other research. Quantitative research 'can generalise research finding when it has been replicated on many different populations and subpopulations.' (Johnson and Onwuegbuzie, 2004). The advantages of quantitative data are their usefulness for a study with large numbers of participants and for specific focus as in this study of knowledge among teachers. The quantitative data are also perceived as "product of research instruments which have been tested for validity and reliability to ensure the data accurately reflect the event itself, not the researcher's preferences." (Denscombe, 2007)

However this method of data collection is criticised for its claim to objectivity and value neutrality. The fact that only measured data are collected leaves out events that are not measurable so a complete picture of the situation under study may not emerge. Quantitative research is also

criticised for being context- free; for measuring only discrete and well-defined data while the smaller parts are over looked (Denscombe, 2010).

4.6.3 Qualitative method

Qualitative research data were collected in form of words, texts and images. Qualitative research usually takes place in natural settings. It is 'concerned with life as it is lived, things happen in the day-to-day, moment-to-moment course of events.' (Hammersley, 1994) Qualitative data are 'grounded in reality' and can give rich details about a situation as they are embedded in native contexts (Johnson & Onwuegbuzie, 2004). The variables in qualitative data are not isolated but are perceived in terms of their relationships and interdependence. It is assumed that qualitative method works because social "realities are wholes that cannot be understood in isolation from their contexts, nor can they be fragmented for separate study of their parts." (Lincoln and Guba, 1985)

The disadvantages of qualitative research are in generalisability as the detailed study of small samples makes it less representative. The findings from qualitative research are dependent on the researcher because they can influence the collection and analysis of the data. The data can take a long time to analyse and data that 'doesn't fit' can be ignored (Denscombe, 2007).

4.6.4 Mixed Methods

The mixed methods approach to research looks at different routes to knowledge and tries to take into account the different viewpoints and opinions. It includes the quantitative and qualitative perspectives and synthesises ideas from both paradigms (Johnson et al., 2007). Onwuegbuzie and Leech (2004) suggested that the target of mixing the methods is to expand the researcher's understanding.

Mixed methods research was developed in the 1950s by Campbell & Fiske (1959) who introduced triangulation for the validation process. This was extended further in 1966 by Webb et al. who first used the word 'triangulation' referred to as 'between- or across-method triangulation' (Johnson et al., 2007). In the 70s and 80s there were ongoing debate about combining qualitative and quantitative data and paradigms (Creswell & Plano Clark, 2007). Triangulation was promoted as a rationale for using mixed methods (Jick, 1979, Denzin, 1979, Moese, 1991) (Johnson *et al*., 2007). However Sieber (1973) gave other reasons for combining quantitative and qualitative research at the design, data collection and analysis stages.

Mixed method research is defined as:

> "the type of research in which a researcher or team of researchers combines
>
> elements of qualitative and quantitative research approaches (e.g. use of

95

qualitative and quantitative viewpoints, data collection, analysis, inference

techniques) for the broad purposes of breadth and depth of understanding and

corroboration"

(Johnson *et al*. 2007 p. 123).

This definition of mixed methods research is adopted for this research.

Many authors have identified several rationales for mixed methods research (Johnson *et al*., 2007, Creswell & Plano Clark, 2007 Collins *et al*., 2006) For example McEvoy and Richards found that the critical realist approach using mixed methods bypasses many of the problems linked to paradigm 'switching'. On the other hand, Onwuegbuzie *et al*. (2009) has written that 'regardless of differences in philosophical assumptions and stances, we all come to view all researchers as belonging to communities of interest.' Niaz (2008) argued for a rationale for mixed methods research programmes in education and concluded that:

"mixed methods research programs (not paradigms) in education can facilitate

the construction of robust strategies, provided we let the problem situation (as

studied by practicing researchers) decide the methodology."

(p. 302)

4.6.5. Rationale for mixed methods

My rationale for using mixed methods for this study is that it will enable me to gather richer and deeper data concerning the phenomenon of 'inclusive education and autism in Nigeria' than otherwise would be possible. The initial survey of teachers in mainstream schools will allow me to identify levels of knowledge across a broad number of teachers – the key professions involved in the implementation of inclusive education policy for children with autism. The semi-structured interviews will enable attitudes at the micro-, meso - exosystemic and macro levels to be investigated. Together these will allow for triangulation of data (Robson, 2011) and for a deeper understanding than would be achieved by a single method alone.

There is an assumption that there is some knowledge of ASD among teachers just as was found among medical and psychology students in Enugu state, Nigeria (Bakare *et al*., 2009; Igwe *et al*., 2010): however, there is as yet no research evidence to support this assumption. The level of knowledge among teachers will be measured by investigating their knowledge of ASD using the modified survey tool. There is as yet no research investigating knowledge, attitudes and practices regarding autism among education professionals and parents in Nigeria. This research will therefore be innovative in all of these areas.

Although the mixed methods research is generally linked to the pragmatic approach to research, (Johnson and Onwuegbuzie, 2004; Johnson *et al.*, 2007; Denscombe, 2008) however the epistemological assumption of critical realism that the real world can only be known through theories; links mixed method with this research instead of the pragmatism philosophy. The decision to use these methods is dependent on their usefulness for answering the two research questions.

4.6.6 Mixed methods design

From the definition above, mixed methods design covers both the data collection and analysis. Onwuegbuzie and Teddlie (2003) proposed a process model of mixed methods research that combines 'seven – stage conceptualisation of the mixed methods data analysis process.' The seven stages are:

- data reduction
- data display
- data transformation
- data correlation
- data consolidation
- data comparison
- data integration.

The description of these stages can be found in the articles and literature on mixed methods. (Johnson & Onwuegbuzie, 2004).

There are different combinations of the mixed methods design. There are equivalent statuses design in which both quantitative and qualitative are equally valued and can be sequential or parallel. In the dominant and less dominant design, one method is of less status than the other; however, the process can still be sequential or parallel. In the third design the two methods are of equal status and parallel (Tashakkori & Teddlie, 1998).

In this research the methods are of equal status and are exploratory. The first phase that is quantitative is descriptive as it is used to reveal a profile of the situation to be researched. The second phase that is qualitative will use the data collected from the first phase to know the aspects from which to collect information. The results of the survey can be generalised in the State (Lagos state) in which the research was done. The findings of the qualitative cannot be generalised but can be used to explain what is happening in that particular situation.

4.7 Phase 1

The justification for this phase of the research is based on the fact that from the literature search there has been no study done on the knowledge of ASD among teachers in Nigeria. However studies done by Bakare *et al*. (2009a, 2009b) and Igwe *et al*. (2010 and 2011) among healthworkers, nurses, psychology and medical students used the same questionnaires that have been adapted and validated for Nigerian use. I used an amended version of Bakare *et al*'s (2009) questionnaire, adapted to be relevant to education professional. The knowledge about childhood autism among health workers (KCAHW) questionnaire (Appendix 1) was:

> "designed to assess baseline knowledge about childhood autism among health workers and the impact that future continued education and awareness campaign may have on such baseline knowledge."

> (Bakare *et al*., 2009)

The KCAHW (Appendix 1) questionnaire was created from an earlier questionnaire that was used to survey health care workers in Nigeria for their baseline knowledge of autism. Due to the problems of understanding and reliability encountered during the survey using the original questionnaire by African Network for the Prevention and Protection against Child Abuse and Neglect (ANPPCAN), the questionnaire was revised by removing and adding some items.

The revised questionnaire originally a nineteen items self-administered questionnaire that was divided into four domains has been proved to be a reliable tool. The questionnaire was able to assess the knowledge of health workers about childhood autism in the primary care setting. In order to make it suitable for teachers who are at the same educational level with the health workers, the questionnaire was modified by me. The first section of the questionnaire were questions on the personal details of the teachers that covered gender, age, qualifications and experience. This enabled me to measure these variables for comparison and to explore their distribution among the teachers. The domains 1, 2, and 3, were used as they were in the original KCAHW, while domain 4 was altered to include questions that are relevant to education instead of medical conditions and terms. The total maximum score of 16 were possible for the four domains.

The survey was carried in both urban and rural areas of Lagos, to compare levels of knowledge. All the participants in the studies done are of similar educational background to most teachers in primary schools within Lagos State and Nigeria. However, I am not seeking to generalise beyond the professionals in the fifteen schools in the study.

4.7.1 Survey

Survey is defined as 'to view comprehensively and in detail' (Descombe, 2007). Surveys are used to 'gather data at a particular point in time with the intention of describing the nature of existing conditions' (Cohen *et al.*, 2011). Survey is an empirical research in which the researcher seeks information that is 'out there' and enables generalisation from data gathered from a large number of respondents. Before a survey is designed its purpose, population of focus and the resources available for the survey must be considered.

The different types of survey are used by researchers according to the aims of their research and their discipline background. The postal surveys that are sent through the post have the disadvantage of low response; however due to large number of the mailings the response is still good enough. The internet survey a cheap and fast alternative

4.7.1.1 Questionnaires

Questionnaires are written forms of instruments used widely for collecting survey information. (Cohen *et al.*, 2011). There are a number of issues to consider when constructing a questionnaire; which are the lengths of the questionnaires as this may affect the number of people who responds. The questions must be clear and specific to avoid confusion as the respondents only have the paper in front of them without any means of clarification. The questionnaire must cover all necessary details about the respondents that may be needed when analysing the responses statistically. The questions should be posed to avoid 'prestige bias' where people may want to appear good. (Thomas, 2009). The questionnaire used in this research meets all the criteria above by being made up of only 20 questions and three choices of answers.

4.7.1.2 Pilot Study

The questionnaire was piloted among fellow PhD students of the Faculty of Education of the University who are from African countries with culture similar to Nigeria at a forum for discussing our different researches. There were no suggestions for any of the words to change as only three questions were added to the modified questionnaire that have been used in Nigeria among the different groups of medical professionals and students.

4.7.1.3 Participants

The decision to use these participants (teachers) were based on the fact that there are eleven public schools in the same local authority and there will be easy access to the schools because of my previous work done with NGO in the schools. Four of the schools have inclusive units attached to the

school premises while the other seven do not have. The local authority was not chosen for this reason as all the local authorities in Lagos state have inclusive units in some of their schools. All the teachers in the local authority sometimes have meetings together so there are opportunities to share knowledge with each other. The other participants (professionals) for the research were sought by me through local connections. That is from colleagues that I have worked with through NGOs. This part of the state where the local government is based is made of people from the lower social economic status who tend to use the public schools as the more prosperous parents are likely to send their children to private schools.

4.7.1.4 Sampling

The teachers were all from a local government area of Lagos state. This sample of teachers can be described as non-probability convenience sampling. All the eleven schools from which the teachers were sampled were within easy access of where I stayed in Lagos as I have to be conscious at all times of safety and cost of transport to and from the schools. Since this is a small-scale research and there are the limitations of time and money on my part having travelled from UK to Lagos, this is the best sampling method available for this phase of the research. The teachers' letters were attached to the questionnaires.

4.7.1.5 Conducting the fieldwork

I had to travel to Nigeria to give the questionnaire to the all teachers in all the schools both rural and urban and gave them a week to complete them because they said they needed the time as they were too busy during the school hours. I needed the consent of all the headteachers and had to deliver my letters (appendix 2) to them by hand to make sure they receive them and collect the replies myself. This sometimes took two days visit to the schools before giving the teachers the questionnaires. After obtaining the headteachers' consent; the teachers were given letters (appendix 3) to explain the purpose of the questionnaires and to let them know they can opt out by not completing the questionnaires as it was not possible to meet with the teachers individually or as a group. The completed questionnaires were collected by the researcher from the schools and brought to the UK for analysis. It was more difficult to collect the completed questionnaires from the teacher in the urban school than in the rural schools because there was a certificate verification exercise of all teachers in the local authority the week I was trying to collect the completed questionnaires. The certificate verification exercise was conducted by the local authority and it involved the presentation of the teachers' certificates of their qualifications and proof of identification. I kept a research journal throughout the fieldwork stage of my research to ensure that there was an accurate record of the field work process and the issues that challenged me during this activity.

4.7.2 Phase 2

The developing child with ASD and their teacher are embedded in social systems as illustrated in the introduction that have impact on their interactions in the classroom (Robson, 2002). The rationale for this phase of the case study research is the need for an in-depth understanding of the individuals in the child's and teachers' social systems (microsystem, mesosystem, exosystem and macrosystem) and their perceptions or experience of the impact of the teachers' knowledge of ASD on the inclusion process for the children with ASD. This is done by interview of the individuals in the urban Lagos area using a KAP (knowledge, attitude and practice) model. The model enabled me to ask questions from the participants about their knowledge of both inclusive education and ASD. I was able to ask them about their attitude and their practice.

4.7.2.1 Interviews

Interviews are useful as a research method 'when the researcher needs to gain insights into things like people's opinions, feelings, emotions and experiences.' (Silverman, 2006; Denscombe 2007) The individuals interviewed for this research are in the position to know or have an opinion on the attitude and practice of inclusive education that may be due to the teacher's knowledge of ASD. They are able to give privileged information about the process of implementing the inclusive education policy in their various areas of practice (Denscombe, 2007).

4.7.2.2 Types of research interviews

There are different types of interviews. They are semi-structured, unstructured interviews and structured interviews (Thomas, 2013). The different types of interviews are explained in details in many text books (Robson, 2002; Cohen et al, 2008; Thomas, 2013; Denscombe, 2010). Both the structured and the unstructured interviews are not suitable for this research because the structured interview use predetermined questions and order while the unstructured interview allow the conversation to develop around the interviewer's area of focus. The participants interviewed for the research are from different professional and educational levels so the interview questions should be open to modifications as I think is appropriate. Therefore the semi-structured interview that allows the changing of words and permits addition or subtraction of questions as necessary is the data collection method I used.

4.7.2.3 Semi- structured interview

Semi-structured interview is the one most often used for small-scale research such as this because it captures the best of both structured and unstructured interviews (Thomas, 2013). The advantage of this type of interview and the reason for its suitability for this research is the flexibility of the order of

the topics in the interview. The interviewee is able to expand on ideas and issues raised by the interviewer. The interview schedule with the list of issues, questions and probes is used as a guide, however if necessary the researcher can move away from it. The structure of the interview schedule focuses the researcher on the aims and themes of this phase of the research without restriction.

 The interviews can be conducted either one-to-one or by group interview. The one –to-one interview involves only the informant and the interviewer limiting the information available to the interviewer. The group interview involves more than one interviewee and the information available to the interviewer is varied. For this research the interview was conducted one-to-one with only the participant and myself present.

The interview started with my introduction and the purpose of the research. I assured all the participants that they will remain completely anonymous and their names will not appear on any record of the interview. The participants were then informed of their rights to stop the interview or not answer any question they are not comfortable with. All the participants were very keen to answer all the questions as they felt that it is important for the outside world to know the situation in the schools regarding inclusive education. All the issues were in form of questions that covered all the areas identified in the literature review.

4.7.2.4 Interview questions

Interview questions can be open-ended or closed questions. The participants for the open-ended questions are able to reply to the questions as they wish while the participants for the closed questions have to give specific answers. However Hammersley and Atkinson (1983) suggested that the researcher (interviewer) may still be able to control the responses to the interview by their being passive as this may constrain the interviewee who may not be sure of what is relevant (Silverman, 2006). Despite this challenge, the interview questions for this qualitative phase of the research were open-ended questions because I wanted to remove any restriction from the participants that may prevent them from going into more depth and revealing their knowledge as well as giving answers I may not have thought to include in the questions. During the interview I took notes as some of the answers given were not part of the interview questions but were relevant to the research and gave insights into perceptions of special educational needs in Nigeria that are not in the interview questions. The interviewees were prompted if necessary in English and in their native language when I felt that they will understand more or when I find the answers to the questions has opened up areas that may be useful for the research. The participants who were not able to answer all the prepared questions because of their limited knowledge of the issues were asked other questions applicable to the study or education in general. When the participants had a lot to say because of the

depth of their knowledge of both inclusive education and ASD as well as the practice of the education professionals in the Federal ministry or the local authority, they were given time to do this.

The interview questions were extracted from the research questions and the literature reviews of both inclusive education and ASD. This is to give me insights into the situation in Nigeria from the perspectives of research into the practice of inclusive education of other countries. The questions on the knowledge of inclusive education and ASD were included to know the participants' concept and understanding of both terms. The questions on attitude was from the thoughts of the participants on inclusive education in particular for young people with ASD. The questions on barriers to inclusive education came from the literature review especially what has been written by Nigerians on the challenges to inclusive education in the country. The questions on outcomes expected from young people with ASD and other special educational needs was added to know what the participants think the young people with special needs can achieve as this also influence their attitude.

4.7.2.5 Pilot study

The interview questions were piloted in Nigeria among a few teachers to know if the questions were relevant in their context and the participants will be able to understand the answers required from them. The teachers who helped in piloting the interview questions assured me that all the participants should be able to understand the questions being asked and answer them without fear of the authority as I assured them of the anonymity of the study. Only the parent found some of the questions difficult but I was able to ask her or prompt her when necessary in her own native language.

4.7.2.6 Sampling

As a single case study, it involves individuals in the social systems of a child with ASD who is attending a mainstream primary school in Lagos, Nigeria. Individuals in the microsystem (child, parent and classteacher), mesosystem (headteacher, head of inclusive unit and other teachers), exosystem (State Universal Basic Education Board. (SUBEB), NGO and speech and language therapist) and macrosystem (National policy and culture).

The samples for this phase of the research are non-probability samples. The samples are 'hand-picked' for the research and are classified as purposive sampling. The advantage of this type of sampling is that I was able to get information from the people who are very critical for the research because of their experience of recommending, providing service for or supporting the child with ASD in the classroom. The participants from the school that is the class teacher, the teacher in charge of the inclusive unit and the headteacher were selected because of the young person with ASD in the school.

The parent of the young person with ASD was educated up to primary school and was in the age bracket of 45-50 years. She tried to answer most of the questions in English but I had to prompt her a few times in her own native language or explained to her the meaning of the question. She was eager to support my research with the hope that her child and other children may benefit from the outcome of the research.

The mainstream teacher was in the age bracket of 35-40 years and has both National certificate in education and a university degree. She has taught in the same primary school for about 15 years. She understood all the questions and was able to answer without being prompted. She was eager to express her perceptions of her concept of inclusive education. She was interviewed at the school away from her classroom in an office.

The teacher in-charge of the inclusive unit at the time I was conducting the research had finished his master's degree in special educational needs that he did part-time while working at the school and was starting his doctorate degree that he has since completed. Hence is knowledge about inclusive education and ASD. He was in the age bracket of 40-45 years and had been teaching for about 20 years. This interview was very easy to conduct because of the knowledge of the teacher. He was interviewed in his office at the school.

The headteacher of the school was in the age bracket of 50-55 years and had been teaching for about 25 years. She is no longer teaching in the classroom and does mainly administrative work in the running of the school. As she is close to retiring age, she did not show much enthusiasm for the implementation of the new inclusive education policy in Lagos State or her need for more knowledge of inclusive education through continuing professional development. This may just be due to the low morale among teachers in the country especially in the primary schools. She was interviewed in her office at the school.

I was in the school on a day that inspectors from SUBEB visited the school. They were there for about a couple of hours and met with the teacher in charge of the inclusive unit and the headteacher. The presence of the inspectors in the school delayed the time I had scheduled to interview the three participants in the school and might have resulted in the interview being conducted in a not so relaxed atmosphere.

The speech therapist was in the age bracket of 40-45 years and has been practicing for almost 25 years privately. She has a doctorate degree in speech and language therapy and is up to date with the changes going on in the field of ASD globally and in the country. She was interviewed in her office which was situated in her own house and where she sees her clients (parents and children). She has created a very calm and attractive environment in her office that is well suitable for children with ASD. She had many toys that she could use to get the attention of the children and for therapy.

The SUBEB staff was in the age bracket of 55-60 years. She has through promotion been moved from teaching and working in schools to the administrative section of the local authority. She has degree and certificate in education. She was interviewed in a private room in the local authority building to avoid interruptions from colleagues and parents who come to the office for various reasons. She is aware that inclusive education is not being practiced as it should but did not appear to want to know how this can be achieved. This attitude may be due to her nearing her retirement.

The NGO staff was interviewed in a café in London as he had come in from Lagos and that was the only time and place I could meet him. He was in the age bracket of 45-45 years. He was working as a social worker in the UK before relocating to Nigeria as a local coordinator of the NGO in Lagos. I worked with him as an educational consultant for the NGO in Nigeria in training parents of children with SEND about caring for their children. The NGO also provided financial support for the parents directly instead of going through the schools.

4.8 Collecting Data

Case study data can be collected from many sources. Yin (2014) suggested six of such sources which are; 'documentation, archival records, interviews, direct observation, participant-observation and physical.' The data for this research were collected from documentation, survey and interviews. The restriction on finance, time and the distance of the researcher from the field of study (Lagos) limited the sources of the data.

The use of multiple methods in collecting data usually alluded to as allowing triangulation could be done by more than one method of collecting data (data triangulation), more than one observer (observer triangulation), combination of quantitative and qualitative (methodological triangulation) and multiple theories (theory triangulation). The advantage of triangulation is the assurance of validity of the research (Robson, 2002, Thomas, 2017). Data triangulation was used in this study to confirm the inclusion of special needs education in the National Policy on Education (1977, 2004, 2008) and the recent first National policy on special needs education of the Federal government of Nigeria that is separate from the National policy on education (2015) as well as the inclusive education policy of Lagos state (2015). The 2015 National policy on special needs education included the situational analysis and the implementation guidelines. The data triangulation used for this research was chosen because I could not use observer triangulation as I would have needed to spend some time in the school to observe the practice of the participants. However, this is a retroductive study that looks back at what caused the participants to practice as they did and yielded the outcome. Theory triangulation which is use of multiple theories in the interpretation of the findings is not suitable for the research because theory is utilized in this research as a tool (Thomas, 2017) to explain the role of the mechanisms at the different social levels that might impact the practice of

inclusive education. As a case study research the use of more than one method to collect the data and the government documents that confirmed the findings allowed me to 'gain, a rich, detailed understanding by examining aspects of the case in detail.' (Thomas, 2017). So is not a methodological triangulation on the other hand it is a data triangulation.

4.9 Data Analysis

The Miles and Huberman (1994) approach to data analysis is firmly rooted in realism because they believe that social phenomena 'exist not only in the mind but also in the objective world – and that some lawful and reasonably relationship are to be found among them.' (p.4) They used their methods to try to find explanations for the effects that the structures create:

> *"We aim to account for events, rather than simply to document their sequence. We look for an individual or a social process, a mechanism, a structure at the core of events that can be captured to provide a <u>causal description</u> of the forces at work."*

(Miles and Huberman, 1994, p. 4)

The analysis needed to demonstrate that each entity (person) is an example of the causal explanation and an evidence of the explanation. The use of flexible design for the research allowed the analysis of the data by this approach. As a case study research, the use of this approach to data analysis is also convenient.

The data collected was analysed according to how they were collected as the quantitative part were collected in numbers and the qualitative part in words. As a case study the analytical approach included a 'detailed description of the case, the setting of the case within contextual conditions.' (Yin, 2003).

4.9.1 Quantitative data analysis

For phase 1, the cross-sectional study of large number of participants, the data was collected in a 'snapshot'. The data was investigated for relationship between the variables. The quantitative data was coded (Appendix 4) by attributing numbers to the variables analysed and using the SPSS. 17 statistical package for the descriptive analysis. The relationship between the level of the teachers' knowledge and the independent variables were explored. The independent variables are age, gender, qualification and experience. The chi-square was calculated to determine the likelihood of obtaining the distribution of the frequencies for the variables.

4.9.2 Qualitative data analysis

The qualitative data was analysed according to the Miles and Hubberman (1994) approach as listed by Robson (2011). The data reduction was done using codes and categories. Thematic coding was 'used as a realist method.' (Robson, 2011) (Gibbs, 2007) stated that 'coding is how you define what the data you are analysing are about.' Using theme mapping by constant comparative method (Thomas, 2013) the areas of agreement and contradictions were identified. This can also be referred to as thematic network. Being, a case study the analysis included detailed description of the case in context as in the section on participants.

The interviews were recorded using my smartphone as this was easier for me to operate on the day of the interviews. The recorded interviews were transcribed in the UK and the transcripts printed. The transcripts were identified by the roles of the participants and analysed using content analysis because of the small number of the participants. Content analysis started in the USA as a quantitative technique for analysing newspapers contents and is usually used for describing what is on the surface, however to create a 'meaningful' analysis of interviews, 'latent' meanings have to be taken into consideration. Therefore to grasp what the participants mean from what they say, to enable me develop categories that are appropriate for the research, I let the themes from the literature review and research questions guide my content analysis.

Content analysis is made up of two parts: the identification of the 'key substantive points' and 'putting them into categories.' (Gillham, 2000 p. 59) The key points were identified by going through every word of the transcripts and underlining the ones with substance. The prompts and the probes from the notes written during the interviews were also considered in coding the interviews as they shed more light on what the participants were trying to communicate to me that may have been difficult for them to express. Then the underlined words were coded and re-coded (appendix 6) to reduce the number. The codes were then arranged into categories and finally themes according to the themes from the literature review and research questions.

From the PPCT model the time aspect is covered by fact that the research is a snapshot. The case is bound by place and time (Thomas, 2011). The time is a period of about two to three years as the first part of the data was collected about two years before the data for the second phase. In the Nigerian term there has been no change at all in the education sector that could have an impact on the case being studied. The increase in the number of people who are internally displaced because of the terrorist insurgency has no effect on the situation in Lagos state as none have been moved to Lagos state. There has been a change of government at the federal and state levels, but the policies have not changed or been implemented.

4.10 Ethical consideration

The ethical consideration for the research is based on the University of Northampton and British Educational Research Association (BERA) (BERA, 2011) guidelines. The ethical approval was sought from and given by the University's Ethics Committee. For the first phase of the research a letter was written to all participants (appendix 3) to explain what the research was about and to give them the option of withdrawing from the research if they wish. Many teachers were unable to complete the questionnaires in the urban schools because of the verification of certificate exercise that was going on in the state that week. The questionnaires were completed anonymously with neither name nor address to identify the teachers. Only the teachers who wanted to participate in the next phase of the research gave their names and email addresses on the letter that were separated from the questionnaires to avoid linking them to their completed questionnaires.

The second phase of the research involved a young person with ASD so the parents were consulted first for permission for the study to go on. The interviews were and transcribed by me for confidentiality and the transcripts were stored securely.

Chapter 5: Findings

5.1 Introduction

In the previous chapter the rationale for the approach and research design of case study used in the collection of data for this study was presented. The causal powers of structured entities in any context that causes events to happen or not is what realists investigate. Hence the impact of the knowledge and attitude of individuals around a young person with ASD in their practice of inclusive education is required from the data collected. At the different level of the social system in which the child and school are embedded, data were collected from a participant or two for in-depth study. In this chapter, the data collected by both the quantitative method and the qualitative method are analysed using the Miles and Huberman (1994) approach because 'their position is firmly entrenched in realism, hence permitting a consistency of the realist view through from design to analysis.' Analysis is viewed as made up of three simultaneous 'flows of activity: data reduction, data display and conclusion drawing /verification.' (Robson, 2002 p. 475). In the analysis of the quantitative data the data reduction was accomplished by coding and descriptive statistics. The display was done through tables because it is an exploratory research and the quantitative data of this mixed method was collected to provide a profile of the teachers' knowledge of ASD. The qualitative data was coded using pattern coding of grouping initial codes into categories and themes.

The results of the questionnaire on the level of knowledge of ASD among the teachers are analysed using the SPSS 17 and the findings from the qualitative interviews are coded, categorised and analysed thematically. I synthesised both findings and combined with the information found in the official documents from Nigeria to show triangulation and confirm that the mixed method approach used for the research was appropriate for this case study.

5.2 Findings from Questionnaire for teachers

The questionnaire (Appendix 1) reveal the level of knowledge of ASD among primary school teachers in Lagos state in both urban and rural area. Teachers in primary schools are highly likely to be the first professional that young people with mild ASD will come into contact with because their parents may not be aware of any symptoms of ASD they may be displaying to seek intervention for them. The questionnaire has been used to study the level of knowledge among medical students and professionals of same academic level in Nigeria.

The teachers in the urban areas were given 232 with 112 returns (48.2%) while the teachers in the rural areas were given seventy questionnaires with sixty-five returns (93%). Both the rural and urban teachers comprised of 85% females and 15% males.

Table 5. 1   Socio-demographic information about sample

	Urban teachers (n=112)	Rural teachers (n=65)
Sex: male	16 (14%)	10 (15%)
Sex: female	96 (86%)	55 (85%)
Age: 21-30	7 (6%)	1 (2%)
Age: 31-40	41(37%)	10 (15%)
Age: 41-50	34 (30%)	31 (48%)
Age: 51 years and above	30 (27%)	23 (25%)
Teaching status: qualified	15 (13%)	42 (65%)
Teaching status: unqualified	97 (87%)	23 (35%)
Teaching experience: <5 years	18 (16%)	0 (0%)
Teaching experience: 6-15 years	41 (37%)	28 (43%)
Teaching experience: 16-25 years	33 (29%)	22 (34%)
Teaching experience: 26 years and above	20 (18%)	15 (23%)

The questionnaires were coded to reduce the data (Robson, 2002). The ages and years of experience were grouped in five years intervals while the qualifications were numbered from non-graduates to Phd. The gender was only two male and female.

5.2.1 Teachers' responses

Questions 1-4 are the details of the socio-demographic variables of the teachers. These revealed the distribution of teachers in the state (table 1). The gender distribution is very close but there is variation in the age distribution. 43% of teachers in the urban areas are 40 years and below while in the rural there are 17% are in that age group. 57% of the teachers in urban areas are 41 years and above while in the rural areas 73% are above 41 years that is almost three quarters of the teachers. The qualified teachers in the urban areas are 13%, which is not even up to a quarter of the teachers and in the rural areas 65%. Many of the teachers in the urban areas are graduates who did not go through the teaching qualifications route. The percentage of teachers with teaching experience of teaching for up to 25 years is about a quarter while in the urban area it is about a half. Hence the teachers in urban areas with more years of teaching experience may have compensated for their lack of qualifications. However the Nigeria review report of Education for all (2000-2014) reported that the quality of basic education is hampered by poorly implemented language policies, coupled with large army of untrained or poorly trained and unmotivated teachers.'

5.2.2 Results of the Adapted KCAHW

Teachers' responses to the 16 statements in the Adapted KCAHW are shown in Table 2 below. Results are presented first with regard to the overall questionnaire and then by domain.

Distribution of scores regarding the Adapted KCAHW

The maximum possible score on the Adapted KCAHW questionnaire is 16 and the minimum score is 0. The questionnaire is divided into four domains with maximum possible scores of 8, 1, 4 and 3 respectively; a minimum score of 0 is possible in each domain.

Bakare et al (2008) identify that the mean total score on the KCAHW questionnaire can provide a measure regarding the level of knowledge about ASD among that particular population, while Igwe et al (2011) state that a maximum score on the KCAHW indicates adequate knowledge of the signs and symptoms of ASD. We suggest that a score of 0-6 indicates a low knowledge of ASD on the part of the respondent; a score of 7-12 indicates a moderate knowledge of ASD; while a score of 13 and above indicates a generally accurate knowledge of ASD.

Table 5. 2   Responses to adapted KCAHW

Statement	Urban teachers (n=112)		Rural teachers (n=65)	
	No	%	No	%
Domain 1				
Marked impairment in use of multiple non-verbal behaviours such as eye to eye contact, facial expression, body postures and gestures during social interaction.	95	85	54	83
Failure to develop peer relationship appropriate for developmental age.	87	78	39	60
Lack of spontaneous will to share enjoyment, interest or activities with other people.	83	74	38	

				58
Lack of social or emotional reciprocity.	79	71	42	65
Staring into open space and not focusing on anything specific.	79	71	44	68
The child can appear as if deaf or dumb.	83	74	39	60
Loss of interest in the environment and surroundings.	80	71	29	45
Social smile is usually absent in a child with autism.	73	65	26	40
Domain 2				
Delay or total lack of development of spoken language.	85	76	49	75
Domain 3				
Stereotyped and repetitive movement (e.g. hand or finger flapping or twisting).	88	79	41	63
May be associated with abnormal eating habit.	85	76	43	66
Persistent preoccupation with parts of objects.	74	66	40	62
Love for regimented routine activities.	61	54	40	62
Domain 4				
Autism is on a continuum from very severe (with no speech) to mild with speech.	69	62	44	68
Children with autism can be educated in mainstream schools.	70	62.5	42	65
Autism could be associated with intellectual disability (mental retardation).	80	71	49	75

There was wide divergence regarding the teachers' responses, and there were no questions where consensus was achieved. Only 23 teachers from urban Lagos State (21%) and 4 teachers from rural Lagos State (6%) answered all questions correctly. The mean score for

the urban teachers was 11.21 ± 4.31, while the rural teachers had a mean score of 10.11 ± 3.75. Mean total scores in each of the domains is shown in Table 3 below.

Table 5.3   Distribution of scores on adapted KCAHW among teachers

Domain	Maximum possible score	Urban teachers (n=112)	Rural teachers (n=65)
Domain 1	8	5.71, SD = ± 1.93	4.74, SD = ± 2.18
Domain 2	1	0.76, SD= ± 0.43	0.75, SD= ± 0.43
Domain 3	4	2.75, SD= ± 1.23	2.46, SD = ± 1.2
Domain 4	3	1.99, SD = ± 1.01	2.06, SD = ± 1.0
Mean score	16	11.21, SD = ± 4.31	10.11, SD = ± 3.75

5.2.2.1 Domain 1: Impairments in social interaction

Questions in Domain 1 concerned the social difficulties in ASD, including problems regarding peer relationships, play, and social reciprocity. Urban teachers scored more highly on average than their rural counterparts, with a mean score of 5.71 ± 1.93, compared to 4.74 ± 2.18. Over 80% of teachers in both groups identified that ASD was characterised by 'marked impairment in use of multiple non-verbal behaviours such as eye to eye contact, facial expression, body postures and gestures during social interaction'. However, there was greater diversity with regard to the statements concerning how this marked impairment might present, with a higher percentage of urban teachers identifying ways in which this may occur than their rural counterparts.

Statistically significant differences were found between the two groups of teachers with regard to two questions. These related to interest in the environment and surroundings (chi-square = 7.6614, df=2, significance level = .005641) and absence of social smile (chi-square = 6.6974, df=2, significance level = .009655). In both cases, about two thirds of urban teachers were aware that these behaviours could be indicative of ASD, compared with less than half of the rural teachers.

5.2.2.2 Domain 2: Impairments in communication

This question concerned communicative difficulties in ASD. As in the original KCAHW, this was limited to verbal communication, with non-verbal communication being addressed as part of Domain 1. Urban and rural teachers' responses were very similar here with about three quarters of each group correctly identifying this communicative impairment.

5.2.2.3 Domain 3: Obsessive and repetitive behaviours

This domain investigated knowledge regarding stereotypical movements such as hand flapping, eating problems, the desire for routines and interest in objects. Urban teachers scored more highly here, with a mean score of 2.75± 1.23, as compared with the rural teachers' score of 2.46 ± 1.2. Many teachers were unaware of the children with ASD's preference for routines (n=51, 46% of urban teachers and n=25, 38% of rural teachers). There were no statistically significant differences between the two groups.

5.2.2.4 Domain 4: Other information about ASD

About two-thirds of teachers in both groups were aware that ASD is a spectrum condition with a range of presentation from mild to severe; and about three-quarters were aware that it can occur alongside intellectual disability. About two thirds of teachers also identified that children with ASD can be educated in mainstream schools. Rural teachers scored slightly more highly overall (2.06 ± 1.0) than their urban counterparts (1.99 ± 1.01) in this domain. There were no statistically significant differences between the two groups.

5.2.2.5 Overall Adapted KCAHW score

The total mean score on the Adapted KCAHW questionnaire among all teachers participating in the study was 10.81 ± 4.13 out of a total of 16 possible. Overall, the mean score for the urban teachers was 11.21 ± 4.31, while the mean score for rural teachers was 10.11 ± 3.75. This indicates that urban teachers therefore had an overall higher level of knowledge than their rural counterparts. In total, 46% of the urban teachers and 31% of the rural teachers demonstrated a generally accurate knowledge of ASD, with 15% of the whole sample answering all questions correctly – twenty-three urban and four rural teachers. The

differences in accuracy levels between urban and rural teachers do not reach statistically significant levels (chi-square = 3.7336, df = 2, significance level = .154616), and it is acknowledged that there are demographic variables between the two groups (such as the age profile of the teachers) as well as a difference in response rate. Nonetheless the results reflect findings in other settings that suggest that professionals working in urban environments may have greater exposure to pupils with ASD – or to information about the condition in general – and therefore demonstrate a more accurate understanding and provide more appropriate support (Lai et al 2012; Zhang et al 2017).

Table 5. 4 Teachers' level of knowledge by location

Location	Low accuracy (0-6)		Moderate accuracy (7-12)		Generally accurate (13-16)	
	N	%	N	%	N	%
Urban teachers (N=112)	15	13	46	41	51	46
Rural teachers (N=65)	11	17	34	52	20	31
All teachers (N=177)	26	15	80	45	71	40

The potential impact of other variables such as qualification, gender, experience and age were also considered (Table 5). None of these variables achieved statistical significance at <.01, though it should be noted that 56% of teachers under 40 years had a generally accurate understanding of ASD, in comparison to just 28% of those over 51 years (Table 6). This result supports other studies suggesting that older professionals may sometimes lack up-to date knowledge and awareness about ASD (Johnson et al 2013).

Table 5.5 Consideration of other variables on teachers' knowledge of ASD

Variable	Chi-square	df	Level of significance
Qualification	4.8891	2	.086764
Gender	5.1589	2	.075816
Length of experience	5.2569	6	.511314
Teachers' age	10.6115	4	.031295

Table 5.6 Teachers' level of knowledge by age

Age	Low accuracy (0-6)		Moderate accuracy (7-12)		Generally accurate (13-16)	
	N	%	N	%	N	%
Under 40 (n=59)	5	8	21	36	33	56
41-50 (n=65)	10	15	32	49	23	35
51+ (n=53)	11	21	27	51	15	28

5.3 Findings from the interview data

This section presents findings from the interviews of people around the child with ASD. Seven people at the different levels of the social systems (microsystem, mesosystem, exosystem and macrosystem) of a child with autism in mainstream primary school were interviewed. The findings are written under the thematic headings of knowledge of inclusive education (IE) and ASD with categories in sub-headings addressing what, where, who and how it is done. The attitudes of the participants towards IE and ASD are extracted from the answers about their perceived benefits. The barriers are the other mechanisms identified in the context that can constrain the process of inclusive education. The expected outcomes of the practice of inclusive education for young people with IE and ASD are also included to explore the participants' attitude.

The research set out to study inclusive education for a child with mild symptoms of ASD in a mainstream primary school, however due to the lack of identification of children with the milder or subtle symptoms of ASD, this was not possible. The child that is the focus of this study exhibited the more severe symptoms and has been diagnosed with ASD by the medical professionals. The school

has an 'inclusive unit' where children with different types of SEN and disabilities are accommodated and when possible taken to mainstream classrooms for lessons. Hence there is a form of inclusive education practiced as defined by the teachers and the local authority SUSBEB staff.

The answers given to the interview questions revealed some agreements and contradictions in the knowledge of inclusive education and ASD as well as in the attitudes of the individuals in the different social systems around the child. These people involved in the practice of inclusive education can either be internal that is have face to face interaction with the child at home (parent), classroom (teacher) and school or external that is outside the school. However the individuals who are external and don't have face to face interaction with the child may still have an impact on the practice of inclusive education going on in the classroom and school due to their role in the local authority and the state universal basic education board (SUBEB) that is responsible for the primary schools.

The main themes that emerged from the coding of the interviews are:

Knowledge of Inclusive education

Knowledge of ASD

Attitude to inclusive education

Perceived barriers to inclusive education in Lagos, Nigeria

Practice of inclusive education at different levels

Impact of the knowledge and attitude on the practice of inclusive education

Expected outcomes of inclusive education for children with ASD

Table 5.7 Categories of Qualitative analysis

Themes	Categories	Examples of text
Knowledge of Inclusive education	Interpretation Location Stakeholders	Teacher: A program that is designed by the government to allow the special needs children to learn together with the regular pupils in the same class room environment Speech therapist: You have the building where you have some form of accommodation and modification that would make the person with special needs to feel accepted. And then there should be material too that are purposive for the child. Material that will make it easier for the child irrespective of the special need and also a form of evaluation system where you can assess the

	Responsibility	effectiveness of whatever programme is in place for that child.
	Type of education	Parent: Take them to special school for their own education. HIU: To make education happen it should involve all the expected stakeholders, teachers, school administrator the children themselves and the non-governmental organisation that may have to help in supplying some one or two things that may be needed in the school. SUBEB: Let's say all of us. The government has its own part to play, the parents, the teachers and the environment that the pupil belongs to. Training them on a skill is part of education as far as I know so they can be independent. Training them on a skill is part of education as far as I know so they can be independent.
Knowledge of ASD	Definition	Headteacher: So in case of this autism they don't relate with people at all. They are always alone. SUBEB staff: Autism is a neurodevelopmental disorder it involves communication not to interact with others to be alone.
	Aetiology Identification Educational placement Physical environment	Parent: I can't remember they mentioned so many things that can give them autism probably the gas. HIU: In this part of the world there is no necessary tool on ground like an identification or diagnosis centre that can say let us take our children to and give them necessary diagnosis. Headteacher: With their case they do not need to be made up with other children. Maybe they need a separate environment. HIU: Not in all school, there are some things that are expected to have in majority of our schools for children

		with autism that are not available even in my own school here we are not having enough things that are expected for us. It is not comfortable enough for children with autism.
Attitudes	Societal attitude	HIU: In this part of the world specifically Nigeria and Africa so to say attitudinal disposition of the people is one.
		ST: In the last ten years it been something that Nigeria is peculiar in that we are very spiritual most of the kids were either taken to spiritualists, to occultist for deliverance of evil spirit because that is what their parents thought of them. That they are possessed and they hide them away so you don't know what happened to them.
	Positive attitude	
	Negative attitude	HIU: No child will be left out and more so in the area of education for children with special needs inclusive education will help to achieve the total over all of the societal attitude it will help for us to achieve positive change in attitude so that people with disability will be at the end of the day generally accepted by the entire society.
	Socialisation	
		Teacher: Of course children with autism they should be educated they should not be left alone because they also need to see the light. They cannot be taught in real fact with the other children because they affect the teaching
		HIU: More so that the child is not discriminated against in any form. Inclusive education as it is expected to help us to achieve the universal vision of education for all.
Perceived Barriers to policy implementation	Accessibility to school	Headteacher: Barriers of inclusion one the distance of the school to the pupils' home is one major barrier because when there is no easy transportation it will not be easy for this children to come down to school.
	Level of knowledge of Education staff.	Teacher: We need exposure The government need to bring out special programs to the level of teachers that are not specialist because this is not meant for the specialist alone
	Class size and composition	

		ST: The number of the children with disability in the same class we have kids with down syndrome, kids with autism, kids with cerebral palsy, kids with physical disability, kids with attention deficit, kids with learning disability, you have all of them in the same class and then you probably have just two teachers or one.
	Resources Physical environment	
		Head teacher: The reason why I say there are other barriers is that their school is not separate. I think they need to construct their school the way they are challenged because our own they are using apart of is normal classroom
	Centre and tools for diagnosis Legislation	
	Access Other children for IE	ST: There are no assessment tools for Nigerians that are standardised in Nigerian society.
		HIU: Then there is no strong legislation that the parents can use to challenge government if there is no provision for them.
		NGO: I think the main barrier to inclusion is the will to make it happen.
		SUBEB: now not all our schools have inclusive education in this zone we have just one inclusive education unit whereas we have 1014 normal schools. It should be nearer to their homes… then the parents don't usually bring their children out for people to say and to enlighten them on their challenges.
Practice of inclusive education	Microsystem	Teacher: Actually you know in teaching we have a lot of methodology so I think at the initial stage that I taught them play way method in teaching autism child.
	Mesosystem	Headteacher: Like we have in my school now we have the regular and we have the inclusive unit there are some in the inclusive unit who are able to mix up with regular ones like the hearing impaired children, although they cannot hear and they cannot speak but we have their language teacher who goes round to do the sign languages when the teacher is teaching them in the class.

	Exosystem	And with that they are able to cope and to catch up with what the teacher teaches in the class.
		SUBEB: During my own time that I am in the classroom we discover pupils with that challenge but we did not know how to solve them rather than may be we think is very quiet, shy we don't really know it is autism since we were not trained in that aspect so we use to encourage may be that girl is having good handwriting so is not talking too much or something like that or you don't talk at all but is able to do one or two things.
	Macrosystem	ST: But it is on paper there is more to see than meets the eyes. Yes as far as implementation is concerned. You
	National SEN policy	have so many disability acts the National policy on
	National policy on IE	education emphasise inclusive education but it still on paper. More of the job is still on paper but to me I
	State policy	believe is one step in progress we will get there sometime.
		HIU: Currently the policy is not yet implemented. In Lagos state there is policy on ground duly signed in May
	SUBEB	2015 but is not yet implemented. National policy is still on draft level. The national education policy not inclusive
	Economy	education policy.
		SUBEB: I have said that if I am having little training about the autism now is the issue.
		HIU: Government is looking at it from the cost required cost for implementing full inclusion. As much as we know that if we are talking about full inclusion for children with special needs all schools will be open to children with special needs more staff in the area of special education will be required more facilities like speech trainer will be needed for children. Then structural modification will
	Cultural beliefs	equally be required in every setting so that is what actually is causing it. And more so we have individuals

	Successful role models	that are not special children but are children of the nomads that are mobile there is need for them to be provided education even in the bush. So the cost of making all those things freely available is a big challenge for government. And more to it is that a good number of people at the helm of government are equally not having in depth knowledge of what are special needs.
		HIU: In this part of the world specifically Nigeria and Africa so to say attitudinal disposition of the people is one, especially to individuals with disability,
		ST: They will improve themselves, improve the family and improve the community where they find themselves. We see a lot of people doing that already in adulthood. We see Temple Grandin although she is not a Nigerian but we hope to see a Nigerian one day
Expected outcomes of IE for child with ASD	Teacher training in ASD	HIU: In Nigeria more than extra we need training to be able to handle these children with autism even on regular basis because no particular training has been tailored towards children with autism specifically.
	Knowledge of ASD in community	ST: but now hopefully we will be able to have a demographic study and know how many they are.
	Acceptance by other children	ST: The child with special needs is accepted, feels have a sense of acceptance and also the other regular children they understand that people are different and they have to respect the differences in other people.
	Development of empathy	ST: In fact the other children, the regular children might even benefit more in the sense that their empathy they learn to empathise with people who are not developing the way they are developing or learning the way they are learning. They also appreciate what they take for granted.
	Teachers' confidence	
	Skills for independent living	

		SUBEB: To be able to train teacher. So that when they identify children with autism they will be able to give necessary support.
		Parent: Training them on a skill is part of education as far as I know so they can be independent.

5.3.1 Knowledge of Inclusive education (IE)

This theme revealed categories about knowledge of inclusive education and addressed the individuals' understanding of what, where, who should be involved or responsible for and how inclusive education should be practised.

5.3.1.1 Interpretation of Inclusive education

The new National policy on special needs education in Nigeria (2015) found from the situational analysis that:

> "Inclusive Education has been misconstrued in some quarters to mean integration or mainstreaming. There is need to spell out guidelines for inclusive practices for special needs education."

The same situational analysis also noted that in Nigeria people with any form of disability are referred to as "physically challenged."

In the Lagos State policy on inclusive education (2015) inclusive education is described as:

> "In essence inclusive education is making education more accessible to all children of school age, irrespective of their socio-economic status, disabilities, race, ethnic or cultural background and gender."

The definition of inclusive education given by the interviewees depends on their level of education and experience.

The NGO representative who has experienced the practice in the UK through his work in schools there described inclusive education as:

> "An education whereby children with special needs and children who don't have special needs are educated together in the same environment instead of having separate exclusive section for children with special needs. Taught in mainstream schools and colleges."

While the teacher defined inclusive education as:

> "A program that is designed by the government to allow the special needs
> children to learn together with the regular pupils in the same class room
> environment."

The headteacher of the school described inclusive education as:

> "Inclusive education to me is the art of bringing in both able and disabled
> children into a common atmosphere of learning where we cater for children
> with different disabilities and even those that are regular too."

Regular children here means children without disabilities.

The head of the inclusive unit at the school who is more educated but much younger than the head
teacher in describing inclusive education said:

> "Inclusive education in perspective is mostly all about creating access and
> equity for every school age child to be able to have quality education in a
> regular classroom setting. An inclusive education is supposed to be a
> neighbourhood school where every child is able to access quality education
> within his own neighbourhood setting. More so that the child is not
> discriminated against in any form. Whether by matter of social or racial
> problems, disability, gender or economic background of the parents. But we
> must emphasis neighbourhood setting for every child."

The speech therapist who is also as educated as the head of the unit described inclusive education
as:

> "a type of educational system where you are allowed children with special
> needs to be with the regular neurotypical kids in a regular education system
> where the plan is to provide as much of near normal in quote of educational
> support for that child, so the child has an opportunity to be with other children.
> Inclusive education should be in such a way that you have provision of
> specialist trained personnel in place. You have the building where you have
> some form of accommodation and modification that would make the person
> with special needs to feel accepted. And then there should be material too that
> are purposive for the child. Material that will make it easier for the child
> irrespective of the special need and also a form of evaluation system where you
> can assess the effectiveness of whatever programme is in place for that child."

The SUBEB staff described inclusive education as:

"Inclusive education to my own understanding is including education of challenged pupils into the normal and formal education. Inclusive education should be a special one. Since they are taking care of the challenged pupils. It will not go straight with the normal child in the class. It will be reduce in population very minimal in classroom may be ten in the class or less. It depends on the population one have."

Only the parent whose educational level is quite low compared to the others described inclusive education as:

"Inclusive education is to assist children not behaving like normal children."

5.3.1.2 Location of inclusive education

There was agreement about the location of inclusive education that is where the education of young people with disabilities and SEN should take place among the NGO worker, teacher, headteacher, Head of inclusive unit and speech therapist.

*"*In the UK having worked in schools here, an inclusive school will be a normal school environment but there will be facilities in place that make it accessible to children with disabilities. Corridors- in one school they had a child who was blind the corridors were wide. But more importantly the other pupils and the teachers have undergone various sorts of classes that they were trying to make the school inclusive." (NGO worker)

"It should like the way, it should look like be informed that the less privilege and the regular pupils to learn to be conducive for them to learn in the same classroom. It should be free from anything that can damage them*."* (Teacher)

While the head teacher described an inclusive classroom as a class:

*"*Class where both the normal and disabled children are being catered for under the same umbrella*."*

The Head of the inclusive unit described the location as:

"An inclusive education is supposed to be a neighbourhood school where every child is able to access quality education within his own neighbourhood setting.

An all-inclusive classroom or school setting is expected to provide everything that will make education accessibility comfortable for every child. Disability gender, socio-economic background notwithstanding it must be a setting acceptance is emphasised."

The speech therapist also of higher educational level described the location of inclusive education in:

> "building where you have some form of accommodation and modification that would make the person with special needs to feel accepted."

The SUBEB staff and parent in contrast suggested special school for inclusive education:

> "Inclusive school should be a special school as I have said. It will provide the instructional materials that solve their challenges should be provided. Their various challenges when we mentioned inclusive education. So the blind child will use braille, it depends on their problem so it provides instructional materials that will meet their needs."
>
> (SUBEB staff)

> "I think it should be where you can find things for children that have autism. Most of them are not used to writing they can learn hard work that will lead them to be independent."
>
> (Parent)

The national policy proposed that education of people with special needs could be in school, home or hospital while the Lagos state inclusive education policy recommended that inclusive education should take place in schools.

5.3.1.3 Responsibility for inclusive education

All the interviewees except for the Headteacher consigned the responsibility for inclusive education to the stakeholders who they all defined. The head of Inclusive unit proposed that:

> "To make education happen it should involve all the expected stakeholders, teachers, school administrator the children themselves and the non-governmental organisation that may have to help in supplying some one or two things that may be needed in the school."

The NGO, teacher, speech therapist and SUBEB staff all agreed with the HOD about the stakeholders that can facilitate inclusive education.

> "Everybody, head teacher will take the lead role the teachers, pupils have to be actively involved probably give them some classes on how to befriend children

with disabilities and diversity work and then parents and the children with
disabilities. The whole term is inclusive so everybody will be included."

<div align="right">(NGO, worker)</div>

"The stakeholders like the NGOs, the non-governmental organisations, the
people working at the schools the stake holders are also like the people outside
the classroom setting. They are the people that can help in achieving this goal.
(Teacher)

The government should be involved. Individuals, non-governmental
organisations, parents and the specialist trained persons. Those people should
be involved because I must tell you providing effective inclusive education
requires finances and everybody; every hand should be on deck."

<div align="right">(Speech therapist)</div>

"Let's say all of us. The government has its own part to play, the parents, the
teachers and the environment that the pupil belongs to."

<div align="right">(SUBEB)</div>

The headteacher and parent in contrast said the government should do it. However the parent
expressed the need for the government to be assisted by NGOs.

"The government but people that are philanthropist should try and assist the
government to make it happen and most of the time its people that have such
children that assist a lot. The government are not doing well as much as people
that know the impact of having a child with autism."

(parent)

5.3.1.4 Structure of Education

The vision of the new National policy on special needs education is 'to maximise human potentials of
persons with special needs and nurture their intelligence, notwithstanding social, economic, political,
religious, language and other circumstances.' The Nigeria education system of 1-6-3-3-4 that is one
year of pre-school, 6 years in primary school, three years in junior and senior secondary school and
the last four years in tertiary education and vocational education should empower people with SEND
to develop functional skills that will enable them live independent lives.

According to the parent, the education provided should enable them develop functional skills:

> "It would be a place where they can be trained in a skill that can be useful to themselves and government."

> (SUBEB staff)

> "Inclusive school should be a special school as I have said. It will provide the instructional materials that solve their challenges. Their various challenges when we mentioned inclusive education. So the blind child will use braille, it depends on their problem so it provides instructional materials that will meet their needs."

> "Inclusive education should be in such a way that you have provision of specialist trained personnel in place. You have the building where you have some form of accommodation and modification that would make the person with special needs to feel accepted. And then there should be material too that are purposive for the child. Material that will make it easier for the child irrespective of the special need and also a form of evaluation system where you can assess the effectiveness of whatever programme is in place for that child."

> (Speech therapist)

5.3.2 Knowledge of ASD

From the knowledge of inclusive education in general this section will now look at the impact of the knowledge of ASD specifically. The parent had no knowledge of ASD until their child was diagnosed while the teacher and the headteacher of the school have very little knowledge. The other participants gained their knowledge from their qualifications and experience.

5.3.2.1 Definition of ASD

The parent identified that:

> "The nature of this autism was mentioned to me when I went took him to hospital. I got told that he is not behaving like a normal child he is not talking he is misbehaving, he will be restless at school tell him to do something he will not do and to some extent I was thinking that he has some brain problem so I took him to do test and it was there I was told that it is not brain problem."

> "Autism, with the little knowledge I have of them, I think they are somehow very stubborn some of them they don't like work if you ask them to work they don't really want to work." Teacher

> "What I notice in somebody who has this problem I have a child who was born here but the parents have taken him away: he plays alone he does not mingle with others and he is always dramatizing. Even sometimes when I sit down he comes to me and say when I look at him he turns his head and say you are beating me. So in case of this autism they don't relate with people at all. They are always alone." Headteacher

The head of the inclusive unit and the speech therapist knows a lot about autism having studied for a master's degree in special needs and he defined autism as:

> "One of the developmental disorders that actually affect how the brain process information among the affected ones. Mostly although it has three core areas of manifestation that is communication deficit, problem in social interaction and behavioural stereotype sort of. Autism has a wide spread other characteristics."

"Autism is a neurodevelopmental condition usually expressed with the triad difficulty with social interaction difficulty with language and difficulty with play. And then now they added difficulty with sensory processing so they are looking at four folds of behaviour that affect the decision of ASD so once any child has meet the criteria for some of those things like ignoring things not responding to his or her name not socialising no functional play preoccupation, fixation, sensory craving all of those will be pointers to autism and then we know that it ranges from very mild to very severe and then we could have high functioning autism with Asperger's syndrome."

(Speech therapist)

The SUBEB staff defined autism as:

> "A neurodevelopmental disorder it involves communication not to interact with others to be alone."

However, she went on to explain the reason for her ignorance:

> "During my own time that I am in the classroom we discover pupils with that challenge, but we did not know how to solve them rather than maybe we think is very quiet, shy we don't really know it is autism since we were not trained in that aspect"

The NGO worker again defined autism from his experience in the UK:

> "It is spectrum so and is process of understanding the brain. I am working with someone here and his autism makes him very exclusive and he can't handle noise or people talking to him and he can get locked in when he is doing something, so you have to tease him out of it."

5.3.2.2 Aetiology of ASD

The parent, teacher, headteacher and the SUBEB staff do not seem to know the causes of ASD:

> "I cannot answer that because I don't know why but I was told that at the hospital that maybe a child xxx or at birth I can't remember they mentioned so many things that can give them autism probably the gas."

> (Parent)

> "Actually, the one that has been here and this one I don't think…some people immediately when they were born it seems it is there. Some did not speak until after eight, that is when they discover that this child is suffering from autism."

> (Teacher)

> "I don't really know but I thought it will be from the birth or I think is from the birth."

> (SUBEB staff)

In contrast the speech therapist was quite clear about the present international stand on the origin of ASD.

> "The research has not fully discovered why and how people have autism. It is linked to some genetic factors and can be worsened by environmental factors too. You see people parents especially say when child eat so and so meal my child is restless and will not sleep but I removed that meal my child feel better but I will say these are some of the environmental factors that might magnify the problem. I would say people have autism because they are genetically disposed."

> "I think it may be a cognitive thing, they are born with it. I don't like using the word birth defect but it is a birth something happen during birth to make them…"

130

5.3.2.3 Education Placement for People with ASD

The headteacher and the parent have the same opinion about the placement for people with ASD:

"In the classroom in a special class. They cannot be taught together with other normal children. They need a special class where you will be able to take care of their particular need."

(Headteacher)

"In special school. Because of their behaviour it is good to go to special school. What happens to him will be happening to other children. They will not know that they have autism. They want them to behave the way are behaving and the way they will be talking to them will leave them feeling xxx and they can even wound somebody. Any child that try to correct or try to force them to do what they can't do. That is why the best place for them is special school. What they are teaching them they should know them as special child and teach them that way."

(Parent)

The SUBEB staff and the teacher on the other hand thought:

"They can be trained in mainstream school, but they will need more attention than the other children. They will need more attention than other children in the classroom."

(SUBEB staff)

"They can be taught in special school and they can be taught in mainstream school too. It depends on the way they want to handle the case, but they can be taught in the special school once they have special attention for them. We have an inclusive unit here and we take them from there to normal classes."

(Teacher)

All the others (Head of unit, speech therapist and NGO worker) who know more about ASD agreed that the young people with the milder symptoms of ASD can be taught in mainstream schools with the appropriate support:

"It is a two-way approach. Those ones that are not having severe exhibition should be taught with regular children but with supportive staff. Those that are

having severe autism should be taught in a mainstream sort of, they will be in the regular class but pull out for some time because there are some peculiar areas that are specific in their area of need to be addressed in a separate setting but not to be used using all the time in separate setting. They need to mix with regular children."

<div align="right">(Head of inclusive unit)</div>

"I want them to be taught in a regular education system because first they are children and they are human beings first irrespective of their needs. So they should be included in the regular educational setting along other physically developing children but provided the necessary support system for them to thrive."

<div align="right">(Speech therapist)</div>

"I believe in inclusive education and believe they should be taught in school at least in mainstream school and those that need specialist provision there should be option for that, but I think initial beginning should be mainstream primary school. They should all go to mainstream primary school. That is my feeling. I do know that at the other extreme there could be challenging behaviour but there are a small number."

<div align="right">(NGO worker)</div>

The NGO has been supporting mainstream primary schools in Lagos on inclusive education.

5.3.2.4 Physical Environment

The physical environment of the classroom in which the children with ASD are being educated is not perceived to be important because of the level of knowledge of the teachers:

"Of course, is good. The physical environment if it is good. My own classroom physical's environment is manageable a little bit manageable because we do not have enough things that we want from the government. We are managing it."

<div align="right">(Teacher)</div>

However, when asked how the physical environment can be improved to make it comfortable for the children with autism the teacher said:

> "Actually, the way I can make it comfortable is the arrangement of the classroom the furniture good walls decorated chart and beautiful toys and the like. I think that one can help."

The head of the inclusive unit admitted that:

> "Not in all school, there are some things that are expected to have in majority of our schools for children with autism that are not available even in my own school here we are not having enough things that are expected for us. It is not comfortable enough for children with autism."

The head teacher did not understand how the physical environment can be made comfortable for children with ASD so when asked if the physical environment is alright and how this can be done she said:

> "It is not. Because they cannot mingle easily with other children. They always want to be alone."

However, the speech therapist that has more knowledge of ASD was able to explain how the classroom can be modified for young people with ASD.

> "Well not in all ways but if you want to practice inclusive education you may need to do some form of modification. Because if you have a child who is sensitive to bright colour or who is fixated on bright colour you may want to modify your class in such way that you reduced the distraction as much as possible so that learning is effective."

(Speech therapist)

5.4 *Attitudes* to inclusive education and ASD

In this category the attitudes of the individuals towards education of children with disability and ASD in particular is extracted from the participants' perceived benefits of IE and ASD for all the young people with disability. All the participants agree that there are benefits in inclusive education for all children not just the children with disabilities including children with ASD.

> "The benefit is just to see it happen in our children. They would be useful to us at home and they would be useful to themselves and to the society."

(Parent)

"They need to see what is going on in the environment if they move around with other pupils they feel appreciated."

"The less privilege ones that is the special children they don't find themselves rejected in the community. At least they are able to mix up with their colleagues they chat, they play and do things in common, they know when one is offended and when one is happy they are able to mix up easily." (Headteacher)

"The benefits are lot because the child will not be redundant at home doing nothing. Here lies the belief he has the potential of becoming a great person. If he is being brought out it will be good for the parents and for himself."

(SUBEB staff)

"Well a child with special needs is a child first irrespective of the special needs so inclusive education will benefit the child in that the child feels accepted. The child is not seeing him or herself differently. The ability in the child is emphasised rather than the disability."   (Speech therapist)

This finding agrees with Lindsay, Proulx, Thomson, and Scott (2013) that

"evidence on inclusive education shows that successful implementation of inclusive principles can lead to increased student engagement in social interaction, higher levels of social support, social networks and advanced education goals compared with their counterparts in segregated settings."

5.4.1 Attitude to teaching young people with ASD in mainstream classes

Only the head of the inclusive unit talked about the attitude of the society to disability:

"In this part of the world specifically Nigeria and Africa so to say attitudinal disposition of the people is one, especially to individuals with disability, government will power, another factor,"

In the situational analysis report prior to the NPSNEN, the role of culture in the education of people with SEND is recognised:

"Bias, cultural archetypes and negative behaviour patterns about Special Needs Education are endemic in Nigeria…Positive re-attitudization and rebranding for both the service givers and the end users should form the basis of the new policy."

5.4.2 Negative attitude

The attitude of the mainstream teacher about who should teach children with autism is rather negative:

> "They cannot be taught in real fact with the other children because they affect the teaching it will affect the teaching because at times if you see the way autism child is interacting in class the regular teacher might be thinking why the autistic child is dancing, gesticulating, behaving abnormal way in the classroom and this will affect the other children."

The support of specialist teachers and severity of the disability according to the Headteacher can influence the attitude of the teachers:

> "Like we have in my school now we have the regular and we have the inclusive unit there are some in the inclusive unit who are able to mix up with regular ones like the hearing impaired children, although they cannot hear and they cannot speak but we have their language teacher who goes round to do the sign languages when the teacher is teaching them in the class. And with that they are able to cope and to catch up with what the teacher teaches in the class."

5.4.3 Positive attitude

In contrast the head of inclusive unit was positive about inclusive education:

> "more so in the area of education for children with special needs inclusive education will help to achieve the total over all of the societal attitude it will help for us to achieve positive change in attitude so that people with disability will be at the end of the day generally accepted by the entire society."

For young people with ASD in particular he emphasised that education is important:

> "It is not a matter of think, I believe they must be educated and education must be taken care of as early as possible. Because education will help them to acquire a good number of skills that they cannot ordinarily acquire like every regular child."

In agreement, the speech therapist and the NGO worker are also positive about the presence of children with ASD in mainstream classes. She argued that:

"A child with special needs is a child first irrespective of the special needs so inclusive education benefit the child in that the child feels accepted. The child is not seeing himself or herself differently. The ability in the child is emphasised rather that the disability."

"I think for a child-focussed approach the benefit is the child with disability would be in I think for a child-focussed approach the benefit is the child with disability would be a normal school and also in quote normal children will also have the benefit of being in a class with children with disability, so it will improve their understanding of differences and diversity. On an economic point it will be cheaper although they add money. It makes economic sense as well. a normal school and also in quote normal children will also have the benefit of being in a class with children with disability so it will improve their understanding of differences and diversity. On an economic point it will be cheaper although they add money. It makes economic sense as well."

(NGO worker)

5.5 Participants perceived barriers to Inclusive education

Inclusive education can be defined as removal of barriers to learning and participation (Ainscow, 2005). The perceived barriers are some of the other mechanisms in the context that can constrain the inclusive education of young people with ASD in mainstream school in Lagos. Many barriers were identified by all the participants in the implementation of the inclusive education policy in Lagos state, the only state where there is an inclusive education policy since 2015. The National policy on education (2004 & 2008) adopted inclusive education without framework for all involved in education including parents. The National policy on Special needs education of 2015 was formulated with implementation guidelines; however, there is no evidence of implementation.

5.5.1 Accessibility

The Headteacher of the school, SUBEB staff and the head of the inclusive unit identified access to schools as a barrier:

"Barriers of inclusion one the distance of the school to the pupils' home is one major barrier because when there is no easy transportation it will not be easy for these children to come down to school. That apart what the children need per se for learning is not being provided by the government."

On the contrary the SUBEB staff gave another reason that hinders access to inclusive education:

> "The parents don't usually bring their children out for people to say and to enlighten them on their challenges."

> "Emphasising lack of transfer for school children from one school to the other even when the parents migrate there are some states where they don't allow transfer of students. That one will not allow effective inclusion because when the children are unable to move from one school to another it will cause out of school children."

> (Head of inclusive unit)

5.5.2 Knowledge of staff.

The teacher sees lack of experience of teaching children with disabilities as a barrier:

> "We need exposure. The government need to bring out special programs to the level of teachers that are not specialist because this is not meant for the specialist alone. It should be for the regular teachers and others and special teachers."

The head of the unit and the speech therapist reported the lack of knowledge of the people in government:

> "And more to it is that a good number of people at the helm of government are equally not having in depth knowledge of what are special needs."

> "You have in most of the districts the people in charge have no idea of what special educations is."

This was confirmed by the SUBEB staff:

> "I have said that if I am having little training about the autism now is the issue. To be able to train teacher. So that when they identify children with autism they will be able to give necessary support."

5.5.3 Class size and composition

In the Nigeria EFA review report (2000-2014), large class sizes of many primary schools was recognised as a challenge in education quality.

According to the speech therapist:

> "The inclusive units in Lagos state that were created to serve children with
> disabilities in mainstream, it is the classroom. The number of the children with
> disability in the same class we have kids with down syndrome, kids with autism,
> kids with cerebral palsy, kids with physical disability, kids with attention deficit,
> kids with learning disability, you have all of them in the same class and then
> you probably have just two teachers or one. How are you going to get result?
> That is why I say it is more of a jamboree for now. But in the true sense of this
> no. It is the classroom. The number of the children with disability in the same
> class we have kids with down syndrome, kids with autism, kids with cerebral
> palsy, kids with physical disability, kids with attention deficit, kids with learning
> disability, you have all of them in the same class and then you probably have
> just two teachers or one. How are you going to get result? That is why I say it is
> more of a jamboree for now."

The NGO worker also agree with the above:

> "As I said in Lagos the challenges are mainly the overcrowding because it is
> obvious that not a lot of the actual education is being done and sometimes
> they look like holding facilities. But from my discussions with some of the
> children they are happy that at least they have come into school. And I think
> also in Lagos some of the challenges are the age appropriateness of some of
> the pupils. At ages 16, 17, 18, 19 they are still in primary school a wide range of
> teenagers in the same class."

5.5.4 Resources

All the participants agreed that adequate resources both human and materials needed for inclusive
education are not provided by the government.

> "The barriers are unaccountable because there are lots of things that are not
> included should be included. Like things to give to these children for their
> learning. If we say we are teaching these children how to build and play and
> don't have what we can use like in the classroom now they are supposed to
> have some teachers for them if it is not there."
>
> (Parent)

> "I think one of the major things is the cost implication for government.
> Government is looking at it from the cost required cost for implementing full

138

inclusion. As much as we know that if we are talking about full inclusion for children with special needs all schools will be open to children with special needs more staff in the area of special education will be required more facilities like speech trainer will be needed for children. Then structural modification will equally be required in every setting so that is what actually is causing it."

(Head of inclusive unit)

The speech therapist was able to capture the main barriers to inclusive education:

"One lack of proper planning because before you put a programme there should be proper planning and when you are planning you bring together all the stake holders. You have in most of the districts the people in charge have no idea of what special educations is. I am telling you they have no idea of what special education is they just bring all parents from United Nations they should we should respect individual with special needs we should do several things, everything is on paper but in practice is not done. So two finance, corruption major is the bane of development in Nigeria where money is not channelled to do, you have diversification of finances on paper they will say they will use so so amount for so so and so as far as education is concerned. It is just on paper in practice the leaders put the money away and don't do what they are supposed to do. When the finance is provided it is diverted or embezzled and the equipment too are not there, you want to use PECS they are not available."

5.5.5 Identification of children with ASD in Nigeria

From the Nigeria situational analysis, it was reported that:

"Government has not put in place a proforma and anecdotal record chart for distribution to schools, centres, hospitals, homes and public offices aimed at tracking early detection of persons with special needs."

The parent from experience is aware of test for identification but the teacher and headteacher have an idea of how they can be identified from their behaviour. This shows that the school staff are not aware of the identification process of young people with ASD by the medical professionals

"I think that by testing them because it was at the hospital I was told."

(Parent)

"Is from the way they are, the way they react."

(headteacher)

139

"Some of them are identified with their character, the way they interact in their class but some of them they want to associate with the pupils in the classroom learning environment. Like the one I said earlier on that some of them they like music, some of them just bang their legs on the floor anyhow. In fact some of them they will … you will see them nodding their head they will continue nodding their head like every turning their head they are the things that are characteristics."

(Teacher)

On the contrary the head of the inclusive unit is aware of tools that can be used for identification through interaction with parents who have taken children out of the country for diagnosis.

"In this part of the world there is no necessary tool on ground like an identification or diagnosis centre that can say let us take our children to and give them necessary diagnosis. Many parents travel as far as South Africa, London to go and do necessary diagnosis for their children but what we do know is that within the behavioural disposition of the children once the child is unable to have eye contact with the person and is having some stereotype behaviour is having problem in communication and then social deficit it is easy to identify them with all those behaviour.

(Head of unit)

"You can identify them when they are growing up. They will not listen they will be alone nothing like sharing their problems within themselves. They don't socialise with people."

(SUBEB staff)

"Some instruments have been developed to identify children with autism because autism is expressed in behaviour. I only know that behaviour and those behaviour will give you a pointer to whether it is autism or other developmental disability. If you look at symptoms associated with attention disability they are some of the symptoms seen in children with autism. So if you now use specific tools like the ADOS like the M-CHAT, CHAT, DSM-1V you have a lot of them out there that you can actually use or to specifically say this child is likely to have autism. I believe you have to use assessment tools but parents will always tell you I noticed this deviation in my child. They will tell you first. They are the first to see some of these things that are not in quote normal."

"Well in the UK from an early onset, there will be some certain behaviour that

they will be identified at primary school they are not meeting certain learning

targets. There are some behaviour characteristics. In Lagos I am not sure. I

don't think there is any identification yet. My perception is that in Lagos there

is not a lot of screening that goes on. I am sure there is a lot of children with

autism they are not aware they have autism."   (NGO worker)

5.5.6 Legislation

The head of the inclusive unit emphasised the absence of legislation to enforce the inclusive
education policy:

"Then there is no strong legislation that the parents can use to challenge

government if there is no provision for them. Then the policy is relatively weak

and not properly implemented. It is not every state in this country that is

having policy, only selected states are having policy and as no yet national

policy that can be adapted or enforced on everybody. But one thing is attitude

followed by legislation and policy."

5.6 Practice of inclusive education by individuals

In this section the practice of the individuals in the social systems around the child with ASD is
revealed. From the ecological model of human development, the individuals are from the inner most
circle of the microsystem (parent and classroom teacher) to the outermost circle of the macrosystem
the national level of the country (Nigeria).

5.6.1 Microsystem - Parent's choice of educational placement

The parent has no control over choice of school and their child attends the school that is available to
them. Although the parent is convinced that it is only specially trained teachers that can teach pupils
with SEND including ASD in schools, yet their child is being taught by a teacher who is not a specialist.
The parent said:

"At school is only when they get special teachers, trained teachers that

can teach it is not a normal teacher they need special teachers."

The speech therapist reported on the intervention that many parents seek instead of education:

"Nigeria is peculiar in that we are very spiritual most of the kids were either taken to spiritualists, to occultist for deliverance of evil spirit because that is what their parents thought of them. That they are possessed, and they hide them away so you don't know what happened to them."

5.6.2. Practice of Inclusive education/ASD in the classroom

This study set out to explore the inclusive education of a young person in a mainstream primary school with mild symptoms of ASD; however, this was not possible due to the school's inability to identify any. The young person with ASD identified by the teacher is at the severe end of the spectrum and has been diagnosed by medical professionals. He is kept in the inclusive unit with others who have different types of disabilities. According to the classroom teacher they are only allowed in the mainstream classrooms when there is a teacher from the unit available to go with them. The teacher stated:

"Of course, the autism children they can be taught in the classroom but with special teachers and the caregivers. Actually, how they are supposed to be taught it should be one child to two teachers specially. So that is what they need."

When asked about the strategy for teaching pupils with ASD in the classroom; the teacher did not know of any and reported that:

"Actually, you know in teaching we have a lot of methodology, so I think at the initial stage that I taught them play way method in teaching autism child."

She explained this:

"The one I am having presently is lively he believes everything is play, plays with everything no seriousness. So that is his own life. That is the one I am having presently is comfortable, actually comfortable at times and at times he will tell you no I am not ready to do anything and that is how he behaves in the classroom. When I am teaching he will tell me no, I don't want but with the method I use I try to bring him back to work."

The teacher's perception of how inclusive education should be practiced for young people with ASD is ambiguous:

"They can be taught in special school and they can be taught in mainstream school too. It depends on the way they want to handle the case but they can be taught in the special school once they have special attention for them."

5.6.3 Mesosystem- (school) Headteacher and Head of inclusive unit

The headteacher described the inclusive education practice in her school:

"In my school now we have the regular and we have the inclusive unit there are some in the inclusive unit who are able to mix up with regular ones like the hearing impaired children, although they cannot hear and they cannot speak but we have their language teacher who goes round to do the sign languages when the teacher is teaching them in the class. And with that they are able to cope and to catch up with what the teacher teaches in the class."

When asked about strategies for teaching children with ASD, she said:

"When you are teaching assuming they are in the midst of other children, when you are teaching, they will be doing one particular thing so it is that particular thing they are doing that you too will do with them."

"The child cannot progress with others."

"So that teacher will be able to know the particular methods, the teaching method and the way to handle the child. To be able to know the method to be able to know the strategy you will need for teaching the children. Teaching materials to teach them. It is through the extra training."

The head of the inclusive knew of strategies that can be used to teach young people with ASD.

"One of the strategies that I know some of my colleagues have been using in some schools. We use this picture exchange communication strategy and I also did good level of research in the area of social interaction activities to enhance social interaction and equally adopt physical exercise. Some of them are somehow hyperactive and they have reserve energy so with the use of physical exercise it helps to reduce their tendency to be violent or like."

The Head of inclusive unit was very clear about how young people with ASD should have inclusive education.

"It is a two way approach. Those ones that are not having severe exhibition should be taught with regular children but with supportive staff. Those that are having severe autism should be taught in a mainstream sort of, they will be in

the regular class but pull out for some time because there are some peculiar areas that are specific in their area of need to be addressed in a separate setting but not to be used using all the time in separate setting."

5.6.4 Exosystem - Practice of inclusive education by the state (SUBEB)

The staff of SUBEB understood the practice of inclusive education as the presence of inclusive units in mainstream schools:

> "I am talking about SUBEB now not all our schools have inclusive education in this zone we have just one inclusive education unit whereas we have 1014 normal schools and we have only 31 inclusive units. You can see that the ratio is not well. Because in each local government in this zone we have one and that one is not enough."

The SUBEB staff no longer taught in classroom but is responsible for what goes on in the classroom through monitoring and inspection of the schools and reported that:

> "During my own time that I am in the classroom we discover pupils with that challenge but we did not know how to solve them rather than may be we think is very quiet, shy we don't really know it is autism since we were not trained in that aspect so we use to encourage may be that girl is having good handwriting so is not talking too much or something like that or you don't talk at all but is able to do one or two things. May be is called to do part of psychomotor, affective cognitive something with him or her. I don't know how to do it we were just trying then."

When asked about what can be done now to make a child with ASD happy in the classroom, she reiterated:

> "I have said that if I am having little training about the autism now is the issue. To be able to train teacher. So that when they identify children with autism they will be able to give necessary support."

The NGO representative's observation of children with ASD in inclusive units:

> "The one in Lagos they didn't look uncomfortable, they didn't look as if they didn't want to be there so I will say probably being children they just are just happy to be with other children.

I think it was clear that the teacher didn't have adequate time to do more one to one to engage with the children. In Igando where one teacher was handling 40 children with various disabilities, whereas they should be less. Sometimes you come in and see the children looking bland. All we see for an autistic child or any child for that matter is not the best environment. They need stimulus."

5.6.5 Macrosystem - Formulating and implementing inclusive education policy

The approach to the formulation and implementation of education policies in Nigeria is top-down. The two policies are put together in this section because all the participants except the parent know of the national policy on education (2004, 2008) and the recently formulated Lagos state inclusive education policy (2015).

The head of the unit who knows a lot about the national and state policies on inclusive education from his studies for master's degree and towards a doctorate degree was able to explain the situation with both national and state inclusive education policies.

"Currently the policy is not yet implemented. In Lagos state there is policy on ground duly signed in May 2015 but is not yet implemented. National policy is still on draft level. The national education policy not inclusive education policy. The National policy on education stated that policy on special education so it is from that national policy on education aspect of special education that inclusive education was just mentioned not having a chapter on its own. A complete draft that is due for endorsement now and implementation strategy equally follow."

From the literature review, the Nigeria education policy (2004, 2008) proposed inclusive education policy for schools without any frameworks for action for the schools as recommended at Salamanca.

The SUBEB staff suggested that the non-inclusion of the stakeholders in the formulation of the policy is one of the reasons for the non-implementation of the policy:

"To me those who know about it should be involved and the teachers teaching them should be involved also. Special education teachers not just ordinary teachers they should involve according to the owners, so it will make the policy work not that paper policy both policy and implementation will now if they have specialised teachers on the ground."

"Everybody, head teacher will take the lead role the teachers, pupils have to be actively involved probably give them some classes on how to befriend children with disabilities and diversity work and then parents and the children with disabilities. The whole term is inclusive, so everybody will be included."

All the participants are aware that the policies are not being implemented in the schools. The head teacher of the school reported that the policies are not being implemented and gave lack of funding as a reason:

> "In that area I will say maybe because of the funding. The government may not be able to meet up giving them enough monetary support so with that the policy may not be implemented."

The teacher on the other hand gave different reasons for the non-implementation of the policies:

> "The reasons for not being implemented are some of our teachers in regular schools are not exposed to that level. We need exposure. The government need to bring out special programs to the level of teachers that are not specialist because this is not meant for the specialist alone. It should be for the regular teachers and others and special teachers."

5.7 Expected outcome of inclusive education on the young person with ASD

The identified young person with ASD who the focus of this study is was unable to express himself but was observed sitting down in the inclusive unit and being taught by the teacher. The expected outcome of inclusive education for the child is from the participants.

All the participants except the headteacher agreed that the education of young people with ASD should have a positive outcome that is self- independence.

5.7.1 Expected outcome for the child:

> "They will not rely on any family." (Parent)

> "Of course, if it is a thing that is identified at the early stage of their life, I think from that level it will help them with the type of exposure they have been exposed to it will help them manage their life later with the help of their parents."

> "Of course, if they are educated they will be exposed they will be free to move with other pupils. If they are free to exercise their body you don't keep them in a lonely place they just give them chance to move around probably what is going on in the society and in the classroom environment."

The head of the inclusive unit suggested that:

"Self-independence, they need to develop necessary skills to be able to live average independent life. They require necessary education to train them in every area like that. At least they need to socialise and do that sort of things."

"If they are educated they will contribute their own part to the society. They will improve themselves, improve the family and improve the community where they find themselves. We see a lot of people doing that already in adulthood."

The NGO worker from his experience of children with ASD in the UK knows the possible outcomes of education for people with ASD:

"Again it depends on the spectrum some who are highly intelligent; the outcome could be that they could be educated in terms of the academic level to any level. Those that are probably more on the extreme will be basic education literacy."

5.7.2 Outcome on the school

The speech therapist suggested that the other children too will be impacted:

"Well it will have impact on every individual within the educational system. The child with special needs is accepted, feels have a sense of acceptance and also the other regular children they understand that people are different and they have to respect the differences in other people. They also appreciate what they take for granted. So I would say both the typical children and the children with special needs they both benefit from inclusive education and the policy is supposed to help them in that way."

5.7.3 Societal issues

The parent was very negative about other children's acceptance of young people with ASD:

"Because it doesn't work. Because the children will beat them. Like having his maths test among the normal children. If that is wrong for them or they will be making jest of them."

"They will not participate with other children without autism. They will not respond to questions and other things."

(SUBEB staff)

"Again, it depends on the spectrum, if the child is very quiet and it tends to get

no problem if it has challenging behaviour it could be very difficult. I think again

with managed with appropriate resources it can be managed and handled."

(NGO worker)

"At initial stage there would be a good level of disturbance and distraction in

the regular children but with experience, I discover that as time goes every

other one blends but at the initial stage there will be a little bit of distraction."

(Head of inclusive unit)

5.7.4 Development of empathy by others

Only the speech therapist mentioned the development of empathy in the other young people around the child with ASD.

"In fact the other children, the regular children might even benefit more in the

sense that in their empathy they learn to empathise with people who are not

developing the way they are developing or learning the way they are learning.

They also appreciate what they take for granted. So I would say both the typical

children and the children with special needs they both benefit from inclusion

education and the policy is supposed to help them in that way."

(Speech therapist)

5.8 Summary

The above findings of the knowledge, attitude and practice of inclusive education especially for young people with ASD in mainstream school, revealed that the individuals closest to the particular young person with ASD have limited knowledge of inclusive education. This impacts their attitude towards the child and their practice of inclusive education. The parent and the classroom teacher are constrained in seeking and providing the right intervention for the young person. The individuals with more knowledge of inclusive education and ASD are further away from the child in the classroom and the structure of the system constrains them. They are unable to share the knowledge they have with colleagues at the school. The professionals are also constrained in their practice because there is no interaction between them and teachers as well as other educational staff at the local and national level. The expected outcomes on the child and the community revealed that the participants are aware of the impact of inclusive education.

Chapter 6: Discussion

6.1 Introduction

The Nigerian Federal government and the Lagos state government published policies for special needs education and inclusive education in 2015 respectively for the first time after I had started collecting data for this study and my literature review had been completed. To complete the triangulation method adopted for this research, I had looked at the Nigeria National policy on education of years 2004 and 2008 that had sections on special education. However the new National policy on special needs education (2015) with frameworks for guidance on implementation that also included situational analysis and the Lagos state inclusive education policy (2015) are the ones included in this discussion. The context within which this research is done is revealed by these two policies that focused on education of people with special needs as both policies identified the areas of weaknesses of the National policy on education of 2004 and 2008.

In this chapter the findings from the quantitative data that are mainly about the level of knowledge of ASD among the teachers is discussed and linked to the findings from the in-depth qualitative interview of all the individuals at the different levels of social systems around the young person. The influence of the knowledge and attitude of the teacher on their practice in the classroom and the others outside the classroom are discussed.

According to the realist approach, the outcome of input into an experiment or a process in a context is influenced by the mechanisms or contextual factors that are present there (Robson, 2002). These contextual factors can constrain or enhance the process resulting in the outcome achieved. In this case study the mechanisms under study are the knowledge and attitude of the participants in their practice of inclusive education. The presence of other mechanisms that can impact inclusive education of young people with ASD in classrooms in the particular context was also revealed.

This research is an exploration of the knowledge, attitude and practice of inclusive education among parents and professionals concerning a young person with ASD in a mainstream school in Lagos state, Nigeria. This is an area that has not been studied before in this context (Franz et al., 2017). However, the worldwide research into ASD especially in the developed countries of North America and Europe requires the knowledge of the situation in the sub-Sahara Africa. The Federal government of Nigeria adopted the inclusive education policy in the National education policy since 1994 when the country signed up for the UNESCO Salamanca statement on inclusive education.

Research Questions

1. What are the knowledge, attitude and practice of key individuals (teachers, parents and professionals) regarding inclusive education and ASD?

2. How might these impacts on the experience of young people with autism?

6.2 Findings from the National and Lagos state government documents of Nigeria

The 2004 National policy in Education in Nigeria stated that 'Special Education is created as a formal special educational training given to people (Children and adults) with special needs.' This is not in agreement with the global practice that sees inclusive education practice "as a reform that supports and welcomes diversity amongst all learners." (UNESCO, 2001) The situation in Nigeria is similar to that of Ghana, in Sub-Sahara Africa and many other developing countries where what is referred to as international "politics of silence" or "politics of vagueness" is preventing the country from setting 'clear goals for educating learners with disabilities.' (Anastasiou and Keller, 2014)

The National government of Nigeria in 2015 while investigating the situation of the education of people with special needs in the country recognise that the 'present practices are not fully consistent with the global best practices.' (National Policy on Special Needs Education in Nigeria (NPSNEN), 2015 p. 1) Consequently, the Federal Ministry of Education wants to expunge from the National Education policy and implementation guidelines 'those actions that are no longer in vogue with world's best practice' (p. iii). The country wants to move away from the "narrowed scope nomenclature of Special education to a more broad-based focus of Special Needs Education and Rehabilitation Services" (p.9) that will produce self-reliant people with disabilities. Hence the government recognised the need for a paradigm shift that will enable the maximisation of potentials of people with special needs. 'Positive re-attitudinization and rebranding for both the service givers and the end users should form the basis of the new policy.' (NPSNEN, 2015 p.6) This concurs with the argument of Hay (2003) in South Africa that staff in education support services need paradigm shift to align their service delivery with inclusive education.

The National policy on special needs education in Nigeria was published separately for the first time in 2015 by the Federal ministry of education from a situation review of the previous National policy on Education (NPE, 2008) that had a section on special needs education from the year 1977 when it was first published and reviewed several times from 1978 to 2013. Situation analysis report of the previous policies was done 'as a precedent to the preparation of the national policy in the field of Special needs education (SNE)' to assess the effectiveness of service delivery. The situation analysis report included the challenges, prospects, needs, way forward to meet the needs and priorities given

to the educational needs. The formulated policy was supported by implementation guidelines based on the philosophy:

- To identify the dignity and worth of the human person and to utilize the residual strength to overcome the weakness.
- To enable the Nigerian child acquire appropriate skills for global competitiveness in the world of ICT.
- To develop the child into a sound, effective and productive citizen.
- To ensure full inclusion of the individual into the community.
- To provide equal access to educational and other service opportunity for all citizens of the country at the primary, secondary and tertiary levels and also those outside the formal school system.

(NPSNEN, 2015 p.10)

It is assumed that the implementation of the new policy 'will definitely enhance the educational service delivery for persons with special needs.'

Also, in the Federal ministry of Education Nigeria EFA review report (2000-2014) Strides and Milestones (2015), the government aimed to promote 'inclusive education and increase access to basic education for children with special needs.'

Meanwhile the Lagos State policy 'is targeted at putting in place an all-inclusive education programme that will facilitate the expansion and improvement of a comprehensive education especially for all out-of-school-children'. The policy aim to reach the 'Millennium Developmental Goals (MDGs)' of "Education for all". The policy like the National policy recognised the existing inclusive education programme as more of integration / mainstreaming with multitudes of challenges. 'These are inadequate infrastructure, shortage of personnel, high ratio of pupil-to-teacher and inadequate instructional materials.' The need for training and retraining of personnel as well as resources to improve on teaching and learning in schools was also recognised. (Lagos State 2015 p.4) The modification of the curriculum and school buildings to meet the needs of all pupils at the school was included in the policy. Similar challenges to implementation of inclusive education policy were also found in South Africa in 2001 (Lomofsky and Lazarus) among many challenges where the development of inclusive education policy was constrained by socio-economic barriers, unsafe built environments, human resource development and few support services. Ainscow (2004) argued that policy documents in education are low 'leverage' mechanisms that can make the practice look good but not work as it should.

6.3 Findings from the quantitative data

The findings of this study suggest that – as with professionals within the country's health services and educators in Edo State – schoolteachers in Lagos State, Nigeria, are generally relatively ignorant regarding ASD, with over 50% of urban teachers and almost 70% of rural teachers having only a low or moderate understanding of the condition. Furthermore, there is a high degree of divergence both within and across the two groups of teachers about all questions in the Adapted KCAHW, indicating that behaviours felt to be characteristic of ASD by some teachers were not considered as such by others. This suggests that the knowledge and understanding of ASD is diverse within this sample.

The interview of the teachers (classroom teacher, head of inclusive unit, headteacher and the SUBEB staff) confirmed this fact as only the younger head of the inclusive unit has some knowledge of ASD and some strategies to use in teaching children with the disorder. This knowledge of the head of the unit is not being harnessed by the school to train the other teachers including the teacher in the inclusive unit. This is confirmed by the situational analysis in the National policy on Special needs education that identified deficiencies in classroom activities.

> "Facilities and materials that enhance learning are either lacking or-where they
> exist-, inadequate and/or obsolete. What is more, many Special Needs
> Education practitioners lack the technical knowhow to operate specialized
> Special Needs Education gadgets"

Although this refers to all pupils with special needs especially the ones with visible special needs such as sensory or physical impairment who may need special equipment to learn in the classrooms. Children with ASD too may need visual aids to help them understand the teacher.

How professionals conceptualise ASD has been shown to be influenced by many factors. These include previous experience of working with children with ASD, family experience, religious or cultural beliefs, the impact of the media or the wider community and so on (Alqahtani 2012, Bakare *et al*. 2009b, Imran *et al*. 2011, Mavropoulou and Padeliadu 2000). ASD is frequently conceptualised negatively throughout Sub-Saharan Africa, with those affected by the condition frequently being considered as 'witches' or 'possessed' (Cimpric 2010). Such views may be held not only within the general population, but also by professionals – Bakare *et al.* (2009b) report that 27% of Nigerian nurses included in their study believed ASD to have a supernatural cause, such as cursed ancestral spirits or the action of the devil – and can lead to stigmatisation and discrimination (Okey-Martins Nkwolo 2015). Whatever the contributory factors, it is inevitable that inconsistent conceptualization

of ASD, such as that evidenced within this sample of teachers, will lead to inconsistency in how they understand and respond to the educational needs of the children they teach.

6.4 Finding from the qualitative analysis

Findings from the qualitative data revealed the impact of knowledge and attitude on practice of inclusive education by the people around the child with ASD. The management of young people with ASD, a lifelong condition involves decision making by the individuals around the child about the identification, diagnosis, interventions, educational placement and strategies that the teachers can use in the classroom. There are many contextual factors inside and outside the classroom that can influence the practice in the classroom, however the aim of this study is to know how the process of inclusive education is blocked or enhanced by the knowledge and attitude of the people around the young person. Starting with the practice of the parents in seeking diagnosis for their child and their choice of intervention and educational placement for their child. The impact of the knowledge and attitude on the practice of the individuals that are internal to schools and individuals that are external to the schools are considered separately.

6.4.1 Knowledge of Inclusive education

Worldwide there is no agreed definition of inclusive education (McLeskey, 2014) and the practice 'can be interpreted and adapted to the context of individual countries.' (UNESCO, 2005) Nigeria signed up for both the EFA declaration and the Salamanca statement of 1990 and 1994 respectively that were accompanied by frameworks for implementation of the initiatives. The UBE programme was a response to Nigeria's commitment to the EFA declaration (1990) that is still a reference point for all education policies in the country. One of the goals of EFA stated that:

> "The learning needs of the disabled demand special attention. Steps need to be
>
> taken to provide equal access to education to every category of disabled
>
> persons as an integral part of the education system."

> (UNESCO, 1990 p.5)

In the relatively new Nigeria National policy for special needs education, the rationale for inclusive education is given as:

> "Access to appropriate education for persons with Special needs is the main thrust of inclusive education. Making appropriate education available to children and youth with special needs is one sure way of achieving access and equity as prescribed by UNESCO for inclusive education programmes."

<div align="right">(National policy on special needs education in Nigeria, 2015 p. 3)</div>

The Lagos state inclusive education policy on the other hand defined inclusion and the rationale for it as:

> "a belief system embraced by members of a learning community. It entails the responsibility of educating all pupils with multi-dimensional challenges and excluded children with the ultimate aim of assisting these diverse groups of pupils attain their desired goals, according to their individual needs and abilities"

<div align="right">(Lagos state inclusive education policy, 2015, p.3)</div>

At this level there is no clear definition for inclusive education as appropriate education is emphasised in the national policy. According to the National policy appropriate education can take place on school-bound settings, home-bound settings or hospital-bound settings. Meanwhile the Lagos State inclusive education policy aims to ensure that all children of school-age attend school and that their needs are met through adaptable curriculum and school infrastructure in 'conjunction with "Education For All". There is no agreement between the National and state on where inclusive education should take place. The Federal ministry of education is supposed to be responsible for special needs education in the whole country and should formulate and implement the policy, however the Lagos State government is not following this directive. This lack of agreement on location of inclusive education between these two arms of government can constrain the practice of inclusive education in the Lagos state. Just as Donohue and Borman (2014) in South Africa argued that the most significant constraint to the implementation of the inclusive education policy in that country is the 'lack of clarity in the policy.' The situation in Nigeria concurs with Ainscow et al (2006) that in poorer countries like Nigeria where more than 10 million children are out of school the emphasis is on quantity rather than quality. Both the National policy and the Lagos state policy focus on all out-of-school children although this includes children with disabilities.

In the 2015 National policy the stakeholders that were recognised as necessary to maximise the service delivery to persons with special needs are Federal and state ministries, government

departments that are associated to them , local governments and NGOs as well as international development partners. The parents, teachers and other staff in school were not included in the long list of stakeholders. However, the research revealed that they consider themselves as stakeholders in the practice of inclusive education who should be involved in the implementation of the policy..

This perception of parents and teachers in the National policy of Nigeria is contrary to the Code of practice of SEND (2015) in the UK that is family-centred and states that the 'Local authority must ensure that children, their parents and young people are involved in decisions concerning their education.' In the annual reviews of the Education health care plans, parents and teachers as well as professionals involved with the young person attend and can contribute to the plan for their child or pupil. These types of meeting that brings all the individuals around the young person together also enable the parents and teachers to learn more about the type of SEND the young person has. The knowledge gained can change the attitude towards the young person and others with same condition. The Nigeria government can adopt this UK model and in the same way use what is available to them in the community to train the teachers and parents as well as increase the knowledge in the community.

6.5 Knowledge of ASD

The knowledge of ASD by all the participants is very much dependent on their age, training and experience like the teachers. The higher their qualifications and their experience of working with children with ASD the more positive their attitude. The headteacher and the SUBEB staff who are in positions that can influence the process of inclusive education do not have the knowledge required to make it effective. Hence, this lack of knowledge at their levels is constraining the inclusive education of the child with ASD at the school. This finding concurs with Robert and Simpson, (2016) who found that the knowledge and training of teachers are very crucial for the success of inclusive education for children with ASD in mainstream school. This also agrees with the findings of Ainscow and Sandill (2010) that there is need for 'levers of change' in schools that can bring change to the inclusive education process. They identified high levers of change as clarity of definition and the associated use of evidence in measuring educational performance. They argued that that can change the way people think and practice. Similarly, in agreement with the research in Ethiopia where training of community health extension workers (HEW) in autism and other developmental disorders for equivalent of only two weeks full time changed their attitudes and negative beliefs. (Tilahun, Fekadu, Tekola, Araya, Roth, Davey, Hanlon, and Hoekstra, 2017)

6.5.1 Impact of knowledge and attitude of ASD in schools

From the findings, there are many contextual factors within the school that can impact the process of inclusive education. However, the focus of this research is the influence of knowledge and attitude of the individuals in the school on their practice. These are the mainstream general teacher in the classroom who is responsible for inclusive education, the head of inclusive unit who should manage the provision for children in the inclusive units and the headteacher who should provide the crucial leadership for the practice of inclusive education (Ainscow and Sandill, 2010). In the classroom there is reciprocal interaction between the teacher and the pupils with ASD. In responding to the demands of the pupils, the teacher too is being impacted. The teacher should then go on to impact the mesosystem which in this case is the other teachers and adults in the school and the headteacher as well as the parent who may need support in meeting the needs of their child at home.

6.5.1.1 Teacher

The teacher's concept of inclusive education is based on the location where the education is taking place. The finding revealed that the teacher's self-efficacy due to her lack of training and competence to teach children with ASD especially the management of their behaviour is a source of tension. This supports the findings of Rose (2001) about teachers' concern regarding their lack of experience and skills needed to teach children with SEN in general. Similarly, Forlin (2001) in Australia identified the stressors for regular class teachers as their lack of professional competence and the effect on the education of other children without SEN. Disruptive behaviour and poor social skills were the stressors identified by the teachers which applies to children with ASD. Also, Emam and Farrell (2009) found that teachers' experience tension from ASD-related behaviour of the children with ASD and this affects their perception of the support needed by the child. This suggest that the teacher's low level of knowledge of ASD and the evidence-based educational interventions (Bond, *et al.*,2016) that schools can use to manage the behaviours that are barriers to the learning of young people with the condition has an impact on the inclusive education process.

The teacher was not aware of the strategies that can be used in schools to remove barriers to learning and participation in the classroom for the children with ASD as suggested by Humphreys (2008). The finding also revealed that the teacher was not aware of the effect of physical environment on the child with ASD who may have sensory issues that may affect their learning in the classroom. This suggest that the process of inclusive education regarding children with ASD in the classroom is influenced by this low level of knowledge of the teacher.

The teacher's concept of 'attention for them' should be from a specialist teacher or teaching assistant who is trained to teach them. This is similar to what teachers in a mainstream school in UK who experience tensions when children with ASD were included in their classroom. While the teachers in the UK use available teaching assistants to manage the tensions (Emam & Farrell, 2009), the school in Nigeria use the teacher from the inclusive unit to support the general classroom teacher. This suggests that the attitude of the teacher in Nigeria is similar to that of teachers in the UK and their practice is influenced by this.

6.5.1.2 Head of inclusive unit

The finding of this research revealed that the head of the inclusive unit has a high level of knowledge of inclusive education and ASD gained from his studies and experience of teaching young people with special educational needs. The attitude of this teacher is different from the teacher without that level of knowledge. His definition of inclusive education is aligned with the Salamanca statement:

> "An all-inclusive classroom or school setting is expected to provide everything
> that will make education accessibility comfortable for every child. Disability
> gender, socio-economic background notwithstanding it must be a setting
> acceptance is emphasised. Nobody discriminates against anybody and the
> teacher is conscious of everybody difference and recognises that in taking care
> of everybody."

This knowledge has an impact on the teacher's attitude as the findings revealed that they feel strongly that children with mild symptoms of ASD should be taught alongside other children without in mainstream classes. The practice of inclusive education in their classroom is enhanced by this attitude of acceptance of children with ASD. The teacher has high expectation of the pupils with ASD due to their knowledge and is reflected in their attitude.

> "Because education will help them to acquire a good number of skills that they
> cannot ordinarily acquire like every regular child."

> (Teacher)

This finding concurs with the finding of Rose (2001) that found that the expectations of teachers is a factor that have a strong influence on schools' inclusive practice.

The head of inclusive unit's concept of inclusive education is based on the educational placement setting. The implication of this concept is that they thought that the implementation of inclusive education at the school requires material resources provided by the government and NGOs. They do not see themselves as a part of the solution to the process of inclusive education at the school by training the teachers:

> "I was personally advocate combination of regular teacher and special teacher
> who is knowledgeable in the field. The special teacher will be as a resource
> person to the regular teacher in an inclusive setting."

> (Head of inclusive unit)

Therefore, the process of inclusive education in the whole school is not being enhanced by the knowledge of the head of inclusive unit. The suggestion that 'becoming more inclusive is a matter of thinking and talking, reviewing and refining practice, and making attempts to develop more inclusive culture.' Ainscow and Sandill (2010) does not seem to be happening at the school as there is no evidence that the teacher in charge of the inclusive unit is sharing their knowledge and attitude with others. This is further confirmed by the teacher in the same school whose knowledge is still very low and who is asking for 'exposure' to enable them experience teaching children with SEN in general.

This contrast with Ainscow and Sandill (2010) who argued that schools and their communities need to develop the practice of inclusive education by identifying and sharing good practices within the school. The finding indicates that the leadership in the school is not making use of the available expertise at the school to develop the community of learning that can contribute to the social learning processes in the school to develop inclusive education. (Thomas, 2013)

6.5.1.3 Head teacher

Having established the fact even when there is a teacher at the school who has a high level of knowledge that could be used to develop inclusive education practice at the school, the headteacher's leader ship is needed for the sustainable organisational change. 'Teachers cannot do what is necessary without the input, supervision, support, understanding and collaboration of the principal.' (Eldar, Talmor, Wolf-Zukerman, 2010)

The interview of the headteacher revealed that their concept of inclusive education is about the placement. They do not see their role in the inclusive education process at the school, as they think that everything needed for the success of inclusive education should come from the government:

> "Barriers of inclusion one the distance of the school to the pupils' home is one
> major barrier because when there is no easy transportation it will not be easy
> for these children to come down to school. That apart what the children need
> per se for learning is not being provided by the government."

This finding agrees with Olufemi *et al*. (2015) that non-availability of materials is an indication of lack of government support and is the most important determinant of successful inclusive education practice in Lagos state.

This contrasts with the findings of Ainscow *et al*. (2006) that the development of inclusive education practices in schools 'involves social learning processes within given workplace that influence people's actions and, indeed the thinking that informs these actions.' They proposed that it needs stakeholders in certain context to have common agenda to direct their deliberations on their practices and bring about ways of working that allow them 'collect and find meaning in different types of information.' This finding suggests that in this context the conceptualisation of inclusive education by the teachers and headteachers is affecting their practice as they did not conceptualise inclusive education as a process that identifies where the school is in terms of removing barriers to learning and participation. Their actions are stuck in their thinking that what is required for inclusive education is external to school and not looking at the resources within the school that could be useful such as the training of teachers to change their thinking.

The headteacher and the head of the inclusive unit identified lack of access to education for some children with disabilities as the distance of the school from their homes and lack of transport. This agrees with Eleweke & Rodda (2002) and Singal (2010) who found that many children in the developing countries of Africa, Asia, Latin America and Middle East with disabilities did not attend school. However, many parents of young people with SEND in the local education area are forced to send their children to the local school because according to the law in Lagos state all children must attend school. The only reason the government cannot enforce this law is because they cannot provide the transport needed to convey the young people to school.

The finding revealed that the headteacher's level of knowledge of ASD is low as they are not aware of the educational interventions or strategies that can be used in the classroom for young people with ASD. This suggests that this level of knowledge and the negative attitude of the head teacher is blocking the process of inclusive education for the children with ASD. The practice of inclusive education regarding the young person with ASD at the school is not based on any known effective evidence-based strategy.

6.5.2. Impact of knowledge and attitude from people External to school

The practice in the schools are influenced by the individuals who are external to the schools but their practice can constrain or enable inclusive education that goes on in the school**.** Those individuals in this research include the parents, the LEA which in this case is the SUBEB staff, the speech therapist representing the medical professionals who should be providing the teachers with strategies needed in teaching to remove the barriers and finally the NGO that can fill the gap for the human and material resources.

6.5.2.1 Parents

The findings revealed that the parents' lack of knowledge of ASD impacted their management of their child with ASD. The parent had a positive attitude to the education of their child but they were also concerned about the attitude of the other children towards their child in mainstream school. The parent felt that their child will be better educated in special school because they thought the teachers there will have more training and skills to meet the needs of their child. This is similar to the findings of Leyser and Kirk (2004).

There was no early diagnosis and intervention for the child because the parent did not seek treatment until they were alerted by the school about his behaviour and inability to communicate. The parent herself took the child to the hospital where he was diagnosed. This finding is similar to the African American parents who were engaged with the health care professionals and were more educated but cultural factors still delayed their children's diagnosis. This implies that cultural factor is very significant in seeking diagnosis and treatment for children with ASD. The cultural factors of access to health care and parents' interpretation of the child's presentation is similar in both context, however the level is higher in Nigeria than USA. The cultural caring of the African American family included protection of their children from harm and tackling of the knowledge deficit in their community to ensure the optimum care for their child. This can only be achieved because of the level of knowledge of the families. (Burkett *et al.,* 2015)

The parent's level of education and socio-economic status influenced her choice of educational placement for her son. She chose her neighbourhood school and assumed the inclusive unit in the schools should enable the school meet the needs of her child. However, she is aware of the lack of resources in the school and she is unable to afford the private special schools for children with ASD that have them. This suggest that knowledge and attitude of the parents are not the only factors that can influence parents' access to inclusive education for their children. The parents need the financial support to look for alternatives when necessary.

6.5.2.2 State Universal Basic Education Board (SUBEB)

The finding revealed that the SUBEB staff who is supposed to monitor the provision for inclusive education conceptualised inclusive education in term of the placement of children with SEN in special schools or inclusive units. This is a form of segregation and contrasts with the principle of inclusive education. From this concept, they see the inclusive units in schools as the implementation of the National inclusion policy. They have no knowledge or training in ASD and the management of young people with the condition. The Lagos State inclusive policy has been formulated but the SUBEB

staff is not aware of it. As far as inclusive education is concerned they were still looking at the medical model and segregation as they were suggesting special schools and inclusive units for children with SEN.

The finding implies that the SUBEB staff based their judgement on their experience of teaching children with ASD therefore their attitude is not positive. This agrees with the research findings that teachers' tensions about teaching children with ASD is related to the behaviour that the children display. This implies that the LEA's monitoring of inclusive education is influenced by their concept of how young people with ASD should be placed.

The SUBEB staff did not suggest that the teachers could seek guidance or support from any external professional agency. This implies that the external agencies were not working with teachers in public schools on interventions that can be managed in mainstream schools by teachers.

6.5.2.3 Speech Therapist

The speech therapist in this study represent the medical professionals who should be involved in the non-educational interventions for young people with ASD. The finding from the interview reveals that the Speech therapist as is expected have a high level of knowledge of inclusive education and how it should be practiced regarding children with ASD in classrooms. The speech therapist owns a private practice and is only parents who can afford it have access to the practice. The children with ASD in public schools whose parents cannot afford to see the therapist are left without any obvious educational intervention. The speech therapist cannot influence the practice of inclusive education in the classroom and the school as whole because they do not work with schools as in the developed countries like UK.

The findings from the speech therapist revealed that their knowledge and attitude do not affect their practice because they have the level of knowledge required for their work. However, lack of culturally suitable tools for identification affects their practice may cause delay or lack of diagnosis that may result in delayed intervention. This service is only for the people that can afford to pay the therapist.

6.5.2.4 NGO worker

The findings from the interview of the NGO worker revealed that they have some knowledge of inclusive education and ASD from their experience of working in schools in the UK. They explained clearly that:

> "I assume that it will be a process, we are not an inclusive school and we want
>
> to become an inclusive school so there would have to be a series of session

before hand. Teachers and also pupils to explain what inclusive will mean and
what will be the impact on them and how their behaviour will be and also
having parents especially specialist buddies coming in to advise the school
about what they will need in place to make that school appropriate for the
child with special needs."

Clearly from the above comment, the NGO representative have positive attitude to the inclusive education of children with disabilities. This suggests that they should be able to help schools deal with the issues identified as the barriers to inclusive education. The knowledge of the NGO can enhance inclusive education for children with ASD in mainstream schools. However, they identified challenges that will need the intervention of the government and the community such as the large classes. They stressed the need for a change in thinking of inclusive education:

"I think the main barrier to inclusion is the will to make it happen and I think
there need to be a realisation that for it to be done properly there is a cost
implication"

This corresponds with the findings by Adeniyi et al. (2015) that mind-set, manpower and materials are needed for successful inclusive education in Lagos state. This indicates that for the practice of inclusive education to begin properly there should be a change in mind-set of all the stakeholders.

The stakeholders expect the NGOs to be involved in the implementation of inclusive education as they think the government cannot do it alone and need the support of the NGOs. This concurs with the findings of Srivastava et al. (2015) from their reviews of implementation of inclusive education that it is the NGOs that mostly assume the role of implementing inclusive education in developing countries instead of the government. However, NGOs in India utilised their capabilities in preparing and providing a transitional period for the government to take over the responsibilities for inclusive education in rural and urban areas.

This contrast with Thomas (2013) that identified Nigeria as one of the countries in the South that adopted policy and practice of inclusive education from the North (developed countries) without consideration about its appropriateness for them. He went on to describe it as 'copycat educational ideology' that is 'shoe-horned into cultures for which it is alien.

This suggests that the NGOs can be used in training the teachers and providing the much-needed materials that the government has failed to provide. The NGOs with their knowledge and positive attitude that has developed from their experience in the UK where the practice of inclusive education is supported by research and legislation can enhance the process of inclusive education in Lagos state.

6.6 Impact of culture.

In the macrosystem of the ecological theory of Bronfrennbrener, the overall culture of the society can impact the practice of inclusive education. The attitudes of all the people involved in the administration of inclusive education in and outside school is influenced by the culture. This includes, the values of the people, political, legal and financial systems. The National policy on special needs education in Nigeria (2015) attributed the non-recognition of special needs education to 'bias, cultural archetypes and negative behaviour patterns about special needs education' that is widespread in Nigeria. This concurs with the case study of inclusive education in Ghana a West-African country like Nigeria. The cultural impact is seen through parents of children without disabilities who threatened to remove their children from classrooms with children with disabilities. Some people avoid association with people with disabilities because of their beliefs that disabilities are caused by spirits. Likewise in South Africa where fees are paid in schools, parents prefer to send children without disabilities to school because they are likely to bring income later instead of disabled children who may not bring any income. (Donohue and Bornman, 2014)

6.7 National Government influence on policy formulation and implementation

All the participants interviewed agree that the national policy on inclusive education is not being implemented at all. This corresponds with the views of Nigeria researchers in the field of special education and education in general (Garuba, 2003; Obiakor & Offor, 2011). The findings of the research show that the policy was formulated by the people who have very little or no knowledge of inclusive education. Thomas (2013) identified Nigeria as one of the countries that is damaged by the consequences of adopting policy and practice that is foreign to its cultures. The participants were able to recognise the need for the policy to be formulated with input from the stakeholders who they identified as parents or caregivers, teachers, government, NGOs and all involved in education. Fabunmi (2005) also agreed that the educational policies from the colonial masters do not meet the ambitions and uniqueness of the local people. This implies that the formulation of inclusive education policy should take into consideration the culture of the local people by involving the stake holders. The involvement of the people who will implement the policy is very crucial to the success of inclusive education practice.

The approach to the policy formulation and implementation is top-down as in South Africa and this requires that 'procedures are clarified, directives are given and the appropriate authorities assume responsibility and control of its implementation.' The policy makers need to methodically implement the policy. This type of approach to policy was recommended in circumstances where there are various attitudes and no agreement 'about best practices for children with disabilities.' (Donohue and Borman, 2014)

6.7.1. Impact of Nigeria politics on educational inclusion

> "Political parties during the days of the late Obafemi Awolowo were driven by
> meaningful ideological stance. Today we lack parties that prioritize the needs of
> the citizens, what the country parades today are party that unashamedly lack
> ideology"

(Olanrewaju, 2015, p.1)

The frequent change of government in Nigeria during the many years of military rule meant that the inclusive education policy that the military first signed for and chose to adopt for the country was not followed through by the democratically elected civilian governments after them. The political parties that followed have no ideologies (Omotola, 2009) to guide their policies on the educational system. Although the National policy on education had inclusive education in a section of it since its first publication in 1977 and in the subsequent reviews, yet in the 2015 situational analysis of NPSNE in Nigeria found that there were deficiencies in the practice of inclusive education that all previous governments have not addressed.

> "The 1978-1979 implementation blueprint on the national policy on Education
> sated that there would be a joint National Committee on special needs
> education. This is yet to be implemented."

(NPSNE, 2015 p. 8)

6.7.2 Legal

There is no legislation to back the inclusive education policy. The latest federal government of Nigeria policy on special needs education acknowledged this lack of legislation in their situational analysis. This means that parents cannot challenge the provision for their children and the schools cannot challenge the local authority either. The knowledge of the parents and teachers of ASD and the barriers to inclusive education is constrained by this lack of legislation as they are unable to force the school to provide the interventions needed in cases where the parents may have the knowledge. This agree with the new national policy that stated that 'Government shall put in place functional legislative framework with implementation force for persons with special needs.'

This is in contrast to the UK, Special educational needs Code of practice (1994) that gave parents the knowledge of the process of identification and assessment of their children's needs and provision as well as the right to challenge the provisions for their children with special needs if necessary at the special needs tribunal. As a SENCO, I saw many parents go to the tribunal more than once or twice until they get what they feel is the right provision for their children. Many children were able to stay

in mainstream schools with adequate support because of the SEN Code of practice and succeed in their studies.

6.7.3 Finance

The other barriers identified by the participants are all associated with the lack of finance to provide the resources needed by the school: The speech therapist was able to emphasise this:

> "Finance, lack of equipment or when the equipment is even available they are very expensive and sometimes inadequate. Then because of the differences in children with special needs pupils will not need the same thing because they will not need the same thing you have to provide specified material for different types."

The national policy situation analysis confirmed that:

> "Even where funding is available, it is sometimes accessed by unqualified professionals of non-existent organisations in the social services sector or diverted because Special Needs education are seen as secondary humanitarian services."

> (NPSNE, 2015 p. 7)

This is in agreement with Ravindran & Myers (2012) who found that where there is limited resources the nondisabled children are first considered before the disabled ones. The parent was able to express this by saying:

> "Do it like normal school taking care of all of them like this school now? All the windows are not like in normal school. Look at that normal school now it is better than the inclusive unit. When coming in from that school you will see that it is as if this place (inclusive unit) is just there. They are not taking good care of the school."

The teacher's concept of 'attention for them' should be from a specialist teacher or teaching assistant who is trained to teach them. This is similar to what teachers in a mainstream school in UK who experience tensions when children with ASD were included in their classroom. While the teachers in the UK use available teaching assistants to manage the tensions (Emam & Farrell, 2009), the school in Nigeria use the teacher from the inclusive unit to support the general classroom teacher.

The participants who lack knowledge of ASD are not aware of the identification and diagnosis process of young people with ASD because they are not involved at all in the process. Bakare &

Munir (2011) and Nwanze (2011) a Nigeria speech therapist confirmed that few of the young people with ASD were identified on presentation at the hospital. This is in contrast to the process of identification in the UK and USA where identification is a multi-disciplinary process. Wilkinson (2010) emphasised that there is the need for educators to be trained in the identification and management of children with ASD.

6.8 Attitude to the education of young people with disabilities

All the participants agree that young people with disabilities should be educated. There is a positive attitude to the education of people with SEND. The perceived benefits of inclusive education reveal that the participants support the principle of inclusive education. The SUBEB staff who is supposed to monitor the schools stated that:

> "The benefits are a lot because the child will not be redundant at home doing
> nothing. Here lies the belief he has the potential of becoming a great person. If
> he is being brought out it will be good for the parents and for himself."

> "inclusive education will help to achieve the total over all of the societal
> attitude it will help for us to achieve positive change in attitude so that people
> with disability will be at the end of the day generally accepted by the entire
> society."

> (Head of unit)

The positive attitude of most of the participants contrast to what used to exist. This positive attitude is similar to what was found among teachers in the Northern part of the country who are specially trained to teach children with SEN. The more their training the more positive their attitude (Ajuwon, 2011). The participants who are based in Lagos State where parents are being forced through the State Child rights law to send their children to school may have changed their attitude through experience of seeing the young people learning or just being with other children instead of being locked up at home.

The negative attitude is perceived from the government through lack of support and funding for the resources (human and material) needed for inclusive education. This may be due to what the situation analysis found that 'the various sectors of Special Needs education are not manned by Special Needs Education professionals.'

6.9 Perceived Barriers to implementation of Inclusive education policy in Nigeria

The participants who know of the inclusive education policy recognised that the policy was just on paper and not implemented at all. There are many barriers to the non-implementation of inclusive education policy in Nigeria. Firstly, there was the lack of knowledge of SEN and disabilities by the people in government who adopted the policy in the first place. All the participants are aware that the inclusive policy of the Federal government of Nigeria was formulated without the involvement of what they refer to as the stakeholders. The participants accepted that the government need to involve the stakeholders to implement the policy. This is in agreement with Obiakor et al. (2012) that the success of inclusive education needs the collaboration and discussions of all stakeholders.

The speech therapist summarised the situation by saying:

> "I am telling you they have no idea of what special education is they just bring all papers from United Nations they said we should respect individual with special needs we should do several things, everything is on paper but in practice is not done."

The teacher defined the stakeholders:

> "The stakeholders like the NGOs, the non-governmental organisations, the people working at the schools the stake holders are also like the people outside the classroom setting. They are the people that can help in achieving this goal."

Other researchers in Nigeria, Garuba (2002) and Ajuwon (2012) reported that the Nigerian context was not considered when the inclusive education policy was recommended to schools.

Secondly, in Lagos state, access by transport to school due to distance of the school with inclusive units was identified as a barrier to school for young people with SEN and disabilities in general. This confirms that in the developing countries like Nigeria inclusive education is about access to education for all children (Armstrong et al., 2011).

Thirdly, the physical environment needs modification to make it suitable for all young people with their different types of disabilities as well as reduction in the class sizes. The head of the inclusive unit highlighted:

> "As much as we know that if we are talking about full inclusion for children with special needs all schools will be open to children with special needs more staff in the area of special education will be required more facilities like speech

trainer will be needed for children. Then structural modification will equally be required in every setting so that is what actually is causing it."

6.10 Practice of Inclusive education process

The inclusive education process is embedded in social systems and the individuals at the different levels of the system have an impact on the outcome of the process.

The internal influences for the school are from the microsystem and mesosystem that is the classroom and school respectively; setting where the young person interacts with others. The external influences are from the SUBEB and NGO that are supposed to monitor and support the school in implementing the inclusive education policy formulated by the government.

The policies formulated by the federal government and the state government are all just on paper and have not been implemented. All the people involved in the practice of inclusive education are using their own initiatives as the framework for guidance is not yet available to them.

6.11 Socio-cultural and economic factors in practice of Inclusive education

The practice of inclusive education in Nigeria is influenced by the growing disparity between the wealthy and those with low income or living in poverty. The wealthy ones educate their children in private schools and are able to pay for the therapies and extra support the child may need in and outside schools. Furthermore some of these wealthy Nigerians who have children with disabilities such as ASD and can influence the formulation and effective implementation of the policy, most of the time choose to take their children abroad for diagnosis and interventions. The people with low income educate their children in the Free State schools and have no access to therapists that are usually privately owned or too few to meet the needs of all the children that need them. Most of the people living in poverty are not aware of the interventions available for their children and are not able to seek the needed support.

Therefore without the support of people in the community that can advocate for the provision of resources (human and material), the inclusive education of children with ASD will be difficult.

Chapter 7: Concluding commentary

7.1 Introduction

The identification and impact of other mechanisms alongside knowledge and attitude in the practice of inclusive education in the Nigeria context are the focus of this research. Therefore the main issues investigated are the knowledge of ASD among teachers who are at the fore front of inclusive education in the classroom and the impact of this level of knowledge as well as the knowledge and attitude of other people around a young person with ASD on their practice of inclusive education for the child. The research found that the practice of the teachers in the classroom and the other individuals around the young person with ASD is impacted by their level of knowledge and negative attitude that is from cultural beliefs. However, knowledge can change the attitude and the attitude can change practice at the different levels of the social system. (Fig 7.1)

Knowledge		Attitude		Practice
•qualification •Training •Experience	change →	•Cultural beliefs and values	Change →	•Classrooms •Administrators •Community •External professionals & NGOs
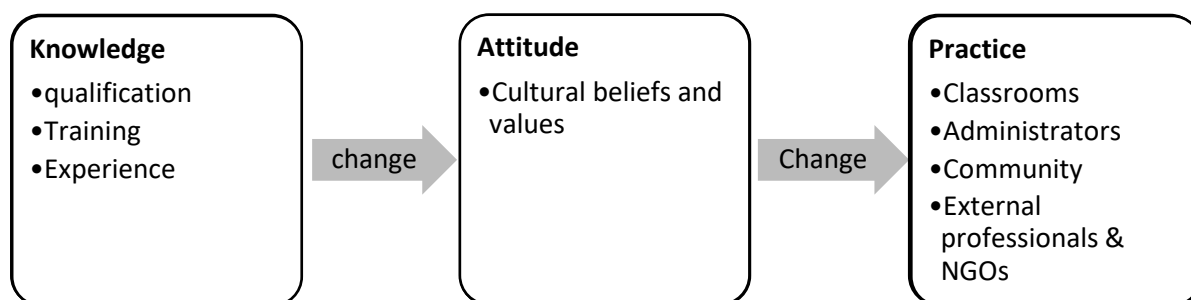
Fig. 7.1

The philosophical approach of critical realism to the research assumes that in any context there are mechanisms present that can constrain or enhance a process. The impact of the different mechanisms can be used to criticise and recommend solution for the identified constraints. The ecological systems theory of human development used in this research as a tool to explain the relationships between the developing child and the social systems in which they are embedded suggested that there should be a bidirectional influence across the social systems. So the teacher should gain knowledge of ASD characteristics from experience of interaction with a young person with the disorder in the classroom (microsystem). The teacher in turn can impact the child through

their strategic teaching in the classroom. At the next level of the social system (mesoystem) in this case the school the teacher should be able to impact the whole school by sharing the knowledge and that can in turn influence the next level (exosystem) and finally the overarching social system (macrosystem) of culture. The findings of the research show that the teacher is not being influenced by the child because of their low level of knowledge of ASD and inability to identify young people with mild symptoms of the disorder as well as their attitude that developed from the negative cultural perspectives of disability. The leadership of the school is constraining the practice of the teachers who have the knowledge of ASD by their own lack of knowledge of ASD and attitude to inclusive education. The headteacher suggested that young people with ASD should be taught:

> "In the classroom in a special class. They cannot be taught together with
> other normal children. They need a special class where you will be able to
> take care of their particular need."

This attitude of the headteacher may be due to the same as the teacher that have only seen the young people with severe symptoms of ASD and are not aware that some of the children in the school may have the milder form of the condition. Consequently, without identification there is no ripple effect of influence in the outward direction from the microsystem of the classroom to the macrosystem of culture.

From literature and research, inclusive education practice should be an ongoing process of transformation of neighbourhood schools (including all education staff and physical environment) to meet the diverse needs of all children. These needs in Nigeria that may be due to socio-economic status, girl-child education in some states and boy-child education in other states, disability and religious beliefs in some states as well as nomadic lifestyle in others are not being met. However, in recognition of this there is a new SNE policy at federal (national) government level and inclusive education policy at Lagos state level that aim to meet these various needs.

7.2 Recommendation for implementing the new national Policy

> "While developing countries have financial constraints, the main issue is not
> about poverty, it is about attitudes, values and beliefs and political will. A
> number of poor countries that have implemented inclusion have been cited
> and their programmes are on the road to success. It is about time that
> developing countries use the little available resources they have and do what is
> practical and feasible in their situation."
> (Charema, 2010 p. 92)

This research reiterates most of what the situation analysis on the effectiveness of the education service delivery to people with special needs found in Nigeria. The situational analysis recognised two areas of deficiencies in the education of people with special needs in Nigeria which are classroom activities and rehabilitation of people with special needs to enable them develop independent living skills.

This study is mainly about classroom activities and hinge on providing appropriate education as the main 'thrust of inclusive education' the rehabilitation of people with special needs can be included as ASD is a lifelong condition and the young people need intervention from other professionals to enable them manage their behaviour. The situation analysis considered that the new national policy on special needs education was necessary because of the lack of functional legislation, wrong use of the term used to describe people with disabilities and there was no early identification of such people. Furthermore, there was lack of data for planning and resources as well as non-recognition of SNE due to cultural bias resulting in negative behaviour towards people with special needs.

Having identified the above reasons for a new policy to address the identified weaknesses of the previous policies that were embedded in the National policy on education, the newly separated policy was set out to counter the previous ineffectiveness of the National policy on education (2004, 2008). In setting the vision for the new policy there is recognition for a paradigm shift in the approach to education of people with special needs. This agrees with the suggestion of Ainscow and Sandill (2010) that the logical starting point for inclusive education must 'address and sometimes challenge the thinking behind the existing ways of working.' Similarly, Obiakor and Folayan (2012) who are Nigerians argued that: 'Nigeria must shift its paradigms, build new paradigm, and join other progressive nations to advocate for the rights of individuals with disabilities and help them join the mainstream society.'

The thinking behind the new policy is evident in the philosophy 'to identify the dignity and worth of the human person and to utilize the residual strength to overcome the weakness and to provide equal.' The special needs education and rehabilitation services (SNERS) should use Individualised educational programme (IEP) in appropriate setting (school, home, hospital). The policy categorised people with special needs into people with disabilities which included people with autism spectrum disorders, children and youth at risk and the gifted and talented.

The co-ordination of the special needs education is the responsibility of the Federal ministry of education in collaboration with associated ministries, governmental and non-governmental organisations from the country and international. This responsibility includes legislation to back the policy, the special training and retraining of all involved in the practice of inclusive education including administrative staff, teacher-pupil ratio, curriculum, planning of SNE programmes and services and removal of all barriers as well as identification and assessment of all people with SNE.

7.2.1 UK SENCO model

The findings of this research suggests how the above recommendations can be approached effectively. There are teachers who have the knowledge and positive attitude towards SNE and ASD and can train colleagues as the SENCOs in UK are trained to train others in the same school. The SENCO model can be adopted from UK since educational policies have always been adopted from UK that colonised Nigeria. The SENCO can also be responsible in schools for the provisions to remove barriers for young people with SEND at schools. The SENCO in the UK is the link between the school, external professionals and parents. So the parents can be influenced by the teachers who have the knowledge and should be able to make decisions concerning the appropriate educational placement and interventions. From my own experience as a special needs coordinator (SENCO) in training teachers at school here in the UK, I found that the role can be taken up by the few teachers at the schools who have knowledge of SEN from their studies or schools can recruit graduates in special needs education who are not being used in schools at the moment to meet the needs of children with SEND. The advantage of this approach is that the teachers who have the same cultural background as the parents will understand where the parents are in terms of accepting their child's condition and be able to give appropriate information at the level the parents will understand. I am also using the knowledge from this study to support African parents of children with ASD and other SENDs in UK who may be struggling to accept their children's diagnosis and seek appropriate education placement and intervention due to cultural values and beliefs.

7.2.2 Multi-agency approach

The findings of this research revealed that the external professionals who have the knowledge of ASD are not working with teachers in public schools because there is no multi-agency approach to management of ASD as in the UK and other parts of Europe and USA. The medical professionals work separate from the education professionals. So teachers are not being influenced by the other professionals and cannot even direct parents to appropriate centres for assessment and interventions.

7.2.3 Training of Education Administrators

The formulation of educational policy in Nigeria is top-down so the paradigm shift necessary have to come from the top where the policy is formulated as well. The civil servants in the Federal ministry of education responsible for writing the policy and implementing it need training and retraining to know and understand the different types of disabilities identified in the policy. As observed in Ethiopia where only three weeks of training health workers about developmental disorders was able to change their negative cultural attitude leading to positive expectations of children with ASD.

(Tilahun, 2017) So the increase in knowledge and change in attitude of the professionals should inform the development of 'functional legislative framework with implementation force for persons with special needs.' This happened in South Africa, where the implementation of the inclusive education policy was started at the macro level by the national and provincial education departments through pilot projects in the most deprived areas supported by funding from foreign organisations. The projects targeted capacity building at district level to develop and monitor educators. Since then South Africa higher education institutions have included 'the theory and practice of inclusion into the curriculum for pre- and in-service training of teachers and other relevant professionals. (Lomofsky & Lazarua, 2001) In Nigeria there are professionals in universities and health services as well as governmental and non-governmental organisations that can train staff in and outside schools on removing barriers to inclusion of all categories of disabilities.

7.2.4 Recruitment of staff for Local Authority

The teachers and professionals who have some knowledge of ASD and positive attitude to inclusive education are younger and more educated as well as being more technologically aware than their usually older headteacher and administrative staff in the SUBEB and local government office. These older staff of SUBEB who have been out of the classroom due to promotion and deployment into the state ministry administrative roles may find the change of approach to special needs education and inclusive education process difficult. So the acknowledged need for a 'a specialised breed of teachers for highly specialised training to inject adequate special needs education into pre-service teachers education programme' can be sourced from the group of younger and more educated special needs teacher who can also be administrators in the state and local authority education offices.

7.2.5 Funding and allocation of resources

The monitoring and selection of the teachers and administrative staff above should influence the way funding and resources needed in school are made available. The funding and resources needed for inclusive education in schools including service provision centres proposed for schools, hospitals and home or private settings will definitely need the Federal Ministry of Education that is responsible for the coordination of special needs education to make sure that the available funding from national, state and local governments reach schools. This needs decentralisation into states that are supposed to use 2% of their income on special needs education. The schools should then be made to account for the funding through effective inspection from the school inspectorate division of all SUBEBs. So the SUBEB staff who from my study have been in service for some time and still have negative attitude to SNE and inclusive education will need to be trained as well.

7.2.6 Other contextual barriers identified in the research

The practice of inclusive education in Nigeria and Lagos state in particular is directed towards the "Education for all" initiative that is focussed on 'quantity not quality' (Ainscow, 2006) because of the many marginalised groups in the country and many out- of-school children (Lagos state policy, 2015). This is common to many Sub-Saharan African countries' education plan and 'does not help developing countries to set clear goals for educating learners with disabilities.' (Anastasiou and Keller, 2014 cited in Ametepee and Anastasiou, 2015). However with the new policy in Nigeria that has put people with special needs into three different categories with the people with disabilities in a separate group, the implementation of the policy effectively should provide appropriate education through the process of inclusive education accessible to young people with special needs.

Consequently, the new national policy on special needs education in acknowledging the above is directed at providing "appropriate education" for children and young people with special needs as a way of 'achieving access and equity as prescribed by UNESCO' (UNESCO, 2000) while the Lagos state inclusive education policy "will facilitate the expansion and improvement of a comprehensive education." Both policies do not have an agreed definition of inclusive education because the national policy is about 'special needs education' which is education of all persons with special needs at school, home and hospital while Lagos state policy is about inclusive education at school only.

The research revealed that these two policies were still not being implemented in the schools even with the accompanying guidelines as school teachers are not aware of them and neither has anything being done to publicise them to all the stakeholders. Matland (1995, cited in Donohue and Borman 2014) argued that the ambiguity-conflict model of policy implementation may constrain inclusive practices. At both national and state levels there are no clear strategies for the teaching staff on how to implement the policies. 'Rather than seeing implementation as an integral part of policy formulation, policy makers tend to view it as an add-on.' (Dyer, 1999)

The practice in Lagos state that consider the 'physical location of pupils in school environment and the classroom' as practice of inclusive education is constraining inclusive education. Schools are not being transformed as recommended by the Salamanca statement that introduced inclusive education; as inclusive education is not perceived as a process of transforming the whole school.

> "It is the general purpose teachers that seem to be dominating the field of
> Special Needs Education. Graduates of Special Education in Nigeria face the
> challenge of relevance on graduation because the curriculum in place is not
> skill-relevant after school life." (NPSNEN, 2015)

The varying level of knowledge of ASD among teachers constrains their practice of inclusive education for children with mild symptoms of ASD because the teachers with low level of knowledge are unable to identify them and employ strategies that will remove the specific barriers to their learning and participation in the classroom. The teachers with moderate knowledge are constrained as well by the school system that prevents them from using their knowledge in teaching or training their colleagues. The pupils in the school with severe ASD symptoms are not being taught as they are kept in the inclusive unit with many other children who have different types of SEND and only one teacher.

The attitude to inclusive education of all young people with all types of disabilities depend on the age, level of education and experience of the individuals that are involved both inside and outside the schools. The practice of inclusive education in general is influenced by the negative cultural attitude of the people at the higher level of the hierarchy of the government who are not special education professionals to disabilities. They have little or no knowledge of SEND. They adopted the policy from the United Nations and control the human and material resources needed by the schools. However, the resources are not always given to schools as they are either diverted to other areas where they feel will be more beneficial to the children without disabilities or misappropriated corruptly.

The negative attitude of the headteacher in the school constrains the practice of inclusive education in the whole school as the leadership needed to develop and encourage the culture of inclusive education in the school is lacking. 'Teachers cannot do what is necessary without the input, supervision, support, understanding and collaboration of the principal.' (Eldar, Talmor, Wolf-Zukerman, 2010)

The pockets of knowledge in the school are not utilised to train the other teachers who have little or no knowledge of ASD. Nigeria do not enable young people with mild symptoms of ASD to have positive outcomes as they are not being taught by teachers who could meet their teaching and learning needs in an inclusive education classroom environment. They do not have the equal access to participate and learn like the other young people without any disability. The high leverage of inclusive education that can bring the paradigm shift needed in the way of thinking and working is not in operation in the schools as it involves training and retraining.

The other barriers to the inclusive education of children with SEN in schools identified by the participants were all recognised in the situation analysis of the National policy. So, this confirms that there are other mechanisms (factors) in the Nigeria context that constrains the practice of inclusive education as prescribed by the Salamanca statement.

From the findings of both the quantitative and qualitative methods, one can conclude that the presence of these other many contextual factors both internal and external to the classroom and school makes the practice of inclusive education ineffective. However, change in definition and ways of thinking through evidence-based training may lead to improvement in practice (Ainscow, 2005). The change in the knowledge, attitude and practice of the individuals at the different social systems can lead to change in the way the community thinks about disability and inclusive education because people at the different levels of the social systems round the child can influence each other.

There is an awareness of ASD due to the existence of inclusive units in some primary schools in Lagos state and in Nigeria as a whole among the younger and more educated professionals who are able to access the media and the internet. However, there is low level of knowledge and understanding of the terms either of the global perspective or local definition.

7.3 Implications for further research

My research adds to what is known in theory about the practice of inclusive education in Nigeria primary school classrooms specifically the reasons for the formulation and non-implementation of inclusive education policy for all types of SEN. The study raises questions about the perception that the practice of inclusive education in Lagos state and Nigeria is very much dependent on funding without considering the other mechanisms present in the specific context. As a Nigerian parent of a child with ASD who resides and works in the field of special educational needs in UK, this study revealed that research into the non-implementation of inclusive education policy is urgently needed in Nigeria. The teachers' knowledge and the interventions by multi-agency working can have an impact on their attitude and practice of inclusive education in the classroom that can lead to a positive outcome for the young people with SEND as in the case of my daughter who is now living independently.

Among the teachers in Nigeria who completed the questionnaire the level of awareness of ASD was raised and some of the younger teachers used the internet for more information on ASD. This awareness among these group of teachers can influence their attitude towards children with ASD and other learning disabilities. Nevertheless, the study also revealed that the cultural attitude of respecting people in authority or older may restrict the younger more knowledgeable teachers from challenging the non-implementation of the policy at the schools by the headteacher.

The use of the questionnaire that was used for medical and health professionals for teachers is an original contribution. The modification of the questionnaire is development of a new research tool that can be used not only in Nigeria but other parts of Sub-Sahara Africa especially the English-speaking countries to study the knowledge of ASD among teachers.

Since many children attend private schools in Lagos, I would have collected my quantitative data from both the public and private sector to get a more representative sample of teachers in primary schools in the state. The children in the private schools are more likely to have support paid for by their parents so it is highly likely that children with mild ASD symptoms who may not have been diagnosed but giving parents cause for concern can be found in the private schools. This I can confirm from my experience while collecting data for my master's degree and interviewed parents.

I have since found that the Lagos University Teaching Hospital has an Autism Neurodevelopmental Resource centre (ANRC) with different associated professionals that I could have approached for information about a child with mild symptoms of ASD. This should have given me participants that are working with the child at the centre and at the school.

7.3.1 Contextual factors in data collection

The teachers were very reluctant to complete the questionnaire as they see is as added chore for which they are not paid, and I had nothing to offer them. They may expect someone living in UK a more affluent country to offer some incentive to them. To make matters worse the week I was visiting the school was the week the teachers were asked to go to the ministry of education for verification of their certificates so a lot of the teachers I had given the questionnaires were not at school when I went back to collect the completed questionnaires and I had to travel back to the UK hence the low number of responses from the teachers. A young teacher still managed to look at the internet for the meaning for ASD.

It was difficult to get teachers that I actually wanted to interview as the head teacher was not able to release them from their classes. The interviews were conducted at the school, offices and homes of the participants and most of the time especially at the school there were background noise that distracted the participants. I had to repeat the questions a few times to get answers from the participants. I spent a lot of money travelling to the different venues for the interviews.

The literacy level of the participants were lower than I expected so I had to prompt them and sometimes used the local language to explain the question.

I realised that in a place like Nigeria, I need to schedule more time in the country to collect the data because of the unscheduled events such as the verification of their certificates. The interviewees are different and while some may not say much others may have a lot to say on the same topic. It is therefore very crucial to pay attention to both types of responses when transcribing. The venue of the interview is very important and if possible try to minimise distractions.

7.3.2 Dissemination of research

My study has been presented at various local and international conferences including Ghana at a conference on autism in Africa where the medical professionals who were the main focus of the conference agreed that there is need for research into education of children with ASD in the continent. The study was presented at the ECER conference in Dublin in 2016 and at the University postgraduate conference in 2014 and 2015. A journal article on the knowledge of ASD among the teachers in urban and rural areas has also been published. (Odunsi, Garner and Preece, 2017)

Areas for development

The research set out to explore the inclusive education of a young person with "mild" symptoms of ASD that could be accommodated in a mainstream classroom. A young person with mild ASD symptoms would have been able to talk and I would have been able to interview them. So this study is limited in the voice of the young person not being heard as the person that was identified who has been diagnosed had no speech and the teacher who supports them with sign language could not interview him on my behalf.

The research was carried out in one local government in an urban area and one local government in a rural area of one state out of 36 states and FCT of Nigeria. Some of the schools have inclusive units attached to them while some did not. Teachers in the schools with inclusive units may have had experience of pupils with severe ASD symptoms and their concept of ASD may have come from there. The teachers in the urban area may have come across the many NGOs or parents' groups that are trying to raise the level of awareness of ASD as most of these activities especially during the month of April that is the autism awareness month are publicised and take place in the urban areas. The other local government areas may be more or less exposed to the activities done to raise awareness of ASD. In the more affluent areas of Lagos State, many of the children attend private schools and parents were able to pay for assessment if teachers report that there is cause for concern. The parents were also able to pay for needed therapies, hence the need to have surveyed private school as well.

The participants for the interviews may not be representative of their professional colleagues. The speech therapist being a private therapist may be biased and the NGO worker too who have only worked with schools in the low-income areas may not be aware of the provisions in the more affluent areas where parents are more vocal and demanding from the government.

The practice of inclusive education in Nigeria requires a paradigm shift at all levels of the social system in which the schools are embedded. The shift can only come from clear knowledge of the different types of SEND that will enable the professionals identify and address the diverse needs of the young people in mainstream schools with and without SEND. With the knowledge will come a change of attitude that can influence the society including the education administrators at all levels of the Federal and State ministries of education and eventually change the overall cultural attitude to SEND since culture evolves.

In Nigeria the members of extended family living together are usually very supportive especially in situations where parents may be struggling to bring up a child with SEN. The grandparents, uncles and aunties often step in to take the role of parents and the more educated members of the family can act as advocates for the less educated and educate the other members of the family about the specific SEND. There is also a growing awareness in Nigeria of the information available on the internet and the younger members of the society tend to use it regularly especially in urban areas like Lagos. This increase in knowledge of the people can be a way of changing the attitude of the community to disabilities.

The respect for elders in the community can be utilised to create a more inclusive educational environment by educating the elders who can then pass the knowledge to the younger ones. The parents of children with SEND themselves can use the knowledge gained from their interaction with their children at home and from teachers to direct members of their extended families who support them about how to meet the needs of children with that the type of disability. This can change the attitude of the people towards other people with disabilities in general.

The respect for people in authority makes it necessary for the ministry of education staff at both national and state level and headteachers of school who are usually older than the teachers due to promotion to be trained in SEND. Their knowledge and leadership is very crucial in changing the attitude of the teachers.

References

Abubakar, A. Ssewanyana, D. and Newton C. R. (2016) A systematic review of research on autism spectrum disorders in Sub-Saharan Africa. *Behavioural neurology*. **2016** Article ID 3501910 1-14

Adebisi, R. O., Jerry, J. E. Rasaki, S.A., Igwe,E. N. (2014) Barriers to special needs education in Nigeria. *International journal of education and research.* **2** (11) 541-462

Adeniyi, S. O., Owolabi, J. O. & Olojede, K. (2015) Determinants of successful inclusive education practice in Lagos state, Nigeria. *World journal of education* **5** (2) 26-32

Agbenyega, J. (2007) Examining teachers' concern and attitudes to inclusive education in Ghana. *International journal of wholeschooling* **3** (1) 41-56

Agunloye, O.O.; Pollingue, A. B.; Davou P. Osagie, R (2011) Policy and practice of special education: lessons and implications for education administration from two countries*. International journal of humanities and social science* **1** (9) 33-38

Ainscow, M. J. (2005) Developing inclusive education systems: What are the levers for change? *Journal of educational change* **6** (1) 109-124

Ainscow M., Howes A., Farrell P., & Frankham, J (2003) Making sense of the development of inclusive practices. *European Journal of Special Needs Education*, **18** (2) 227-242

Ainscow, M. & Sandill, A. (2010) Developing inclusive education systems: the role of organisational cultures and leadership, *International Journal of Inclusive Education* **4** (4) 401-416

Ajuwon, P. M. (2008) Inclusive education for students with disabilities in Nigeria: Benefits, challenges and policy implication. *International Journal of Special Education,* **23** (3) 11-16.

Ajuwon, P. M. (2012) Making inclusive education work in Nigeria: Evaluation of special educators' attitudes. *Disability studies quarterly* 1-17

Ametepee, L. K. & Chitiyo, M. (2009) What we know about autism in Africa? A brief research synthesis. *Journal of the International Association of Special Education*, **10** (1) 11-13.

Ametepee, L. and Anastasiou D. (2015) Special and inclusive education in Ghana: Status and progress, challenges and implications. International journal of educational development, **41** 143-1523

Armstrong, F., Armstrong, D. Barton, L. (ed) (2000) Inclusive education. Policy, Contexts and comparative perspectives. London, David Fulton Publishers,

Armstrong, D., Armstrong, A. C. and Spandagou, I. (2011) Inclusion: by choice or by chance? *International journal of inclusive education* **15** (1)

Avramidis, E., Bayliss, P., Burden, R. (2000) A survey into mainstream teachers' attitudes towards the inclusion of children with special educational needs in the ordinary in one local authority. *Educational psychology* **20** (2) 191-211

Avramidis, E. and Norwich B. (2002) Teachers' attitude towards integration/ inclusion: A review of the literature. *European journal of special needs education.* **17** (2) 129-147

Avramidis, E., and Kalyva, E (2007) The influence of teaching experience and professional development on Greek teachers' attitude towards inclusion. European journal of special needs education, **22** (4) 367-389

Bakare, M. O., Ebigbo, P. O., Agomoh, A. O. and Menkiti, N. C. (2008) Knowledge about childhood autism among health workers (KCAHW) questionnaire: description, reliability and internal consistency. *Clinical practice and epidemiology in mental health,* **4** (17)

Bakare, M. O., Ebigbo, P. O., Agomoh, A. O., Eaton J., Onyeama, G. M., Okonkwo, K. O., Igwe, M. N., Orovighwo, A. O., & Aguocha, C. M. (2009) Knowledge about childhood autism and opinion among healthcare workers on availability of facilities and law caring for the needs and rights of children with childhood autism and other developmental disorders. *BMC Pediatrics,* **9** (12) 12

Bakare, M. O., Agomoh, A. O., Ebigbo, P.O., Eaton, J., Okonkwo, K. O., Onwukwe, J. U. and Onyeama G. M. (2009) Etiological explanation, treatability and preventability of childhood autism: a survey of Nigerian healthcare workers opinion, *Annals of general psychiatry* **8** (6)

Bakare, M.O., Munir, K. M. (2011) Autism spectrum disorders (ASD) in Africa: a perspective. *African journal of Psychiatry* **14** *208-210*

Bakare, M.O. & Munir, K. M. (2011) Excess of non-verbal cases of autism spectrum disorders presenting to orthodox clinical practice in Africa – a trend possibly resulting from late diagnosis and intervention. *SAJP* **17** (4)

Bakare, M. O., Ebigbo, P. O. & Ubochi, V. N. (2012) Prevalence of autism spectrum disorders among Nigerian children with intellectual disability: A stopgap assessment. *Journal of health Care for the poor and underserved,* **23** (*2)* 513- 518

Baker, A. E. Z., Lane, A., Angley, M. T. and Young, L. R. (2008) The relationship between sensory processing patterns and behavioural responsiveness in autistic disorder: A pilot study. *Journal of autism and developmental disorders* **38**

Barnard, J., Broach, S., Potter, D., Prior, A. (2002) Autism in schools crisis or challenge? London, The National Autistic Society.

Baron-Cohen, S., Wheelwright, S., Cox, A., Baird, G., Charman, T., Swettenham, J., Drew, A., Doehring, P. (2000) Early identification of autism by the Checklist for Autism in Toddlers (CHAT) *Journal of the royal society of Medicine* 93

Baron-Cohen, S., Scott, F., Allison, C., Williams, J., Bolton, P., Matthews, F., Brayne, C. (2009) Prevalence of autism-spectrum conditions: UK school-based population study. *The British journal of psychiatry* **194** 500-509

Bello-Mojeed, M., Bakare, M., Munir, K. (2014) Identification of autism spectrum disorders (ASD in Africa): Need for shifting research and public health focus. In Patel, V. B. (Ed) Comprehensive guide to Autism Springer Science –Business Media, New York.

Bhaskar, R (1978) A realist theory of science. Hemel Hempstead: Harvester press

Bishop, S.L., Richler, J. and Lord, C. (2006) Association between restricted and repetitive behaviours and nonverbal IQ in children with Autism Spectrum Disorders. *Child Neuropsychology* **12**

Bishop, D. V. M. (2008) Forty years on: Uta Frith's contribution to research on autism and dyslexia, 1966-2006 *The quarterly journal of experimental psychology* **61** (1)

Bishop, S., Hus, V., Duncan, A., Huerta, M., Gotham, K., Pickles, A., Kreiger, A., Andreas Buja, A., Lund, S., Lord, C. (2013) Subcategories of restricted and repetitive behaviours in children with autism spectrum disorders. *Journal of autism and developmental disorders* **43** (6)

Bogdashina, O. (2005) Sensory Perceptual Issues in Autism and Asperger Syndrome: Different sensory experiences Different perceptual worlds. London; Jessica Kingsley Publishers

Bolte, E.E. and Diehl, J.J. (2013) Measurement tools and target symptoms/skills used to assess treatment response for individuals with autism spectrum disorder. *Journal Autism Dev Disord.* **43,** 2491-2501

Bond, C., Symes,W., Hebron, J., Humphrey, N., Morewood, G., Woods, K. (2016) Educational interventions for children with ASD: A systematic literature review 2008-2013 *School psychology international* **37** (3)

Boonen, H., Maljaars, J., Lambrechts, G., Zink, I., Leewuen, K. Noens, I (2014) Behaviour problems among school-aged children with autism spectrum disorder: Association with children's communication difficulties and parenting behaviour. *Research in Autism Spectrum Disorders* **8** 716-725

Bracher, (2012) Investigating Autism: History, Culture and Embodied Difference. Sociology **46** (4)

Bronfenbrenner, U. (1977) Toward an experimental ecology of human development. American Psychology July 1977

Bruner, J. (1990). Culture and human development: A new look. *Human development* **33** 344-355

Burkett, K., Morris, E., Manning-Courtney, P., Anthony, J., Shambley-Ebron, D. (2015) African American families on autism diagnosis and treatment: The influence of culture. *Journal Autism develop disorders* **45**

Byrne, B. (2013) Hidden contradictions and conditionality: conceptualisations of inclusive education in international human rights law. *Disability and society* **28** (2)

Byrne, A. (2013) What factors influence the decisions of parents of children with special educational needs when choosing a secondary educational provision for their child at change of phase from primary to secondary? A review of the literature. *Journal of research in special educational needs* **13** (2)

Charema, J (2010) Inclusive education in developing countries in the sub-Saharan Africa: From Theory to Practice. *International journal of special education.* **25** (1) 87-93

Charman, T. and Gotham, K. (2013) Measurement issues: Screening and diagnostic instruments for autism spectrum disorders – lessons from research and practice. *Child Adolesc Ment Health* **18** (1) 52-63

Charman, T., Taylor, E., Drew, A., Cockerill, H. Brown, J. and Baird, G. (2005) Outcome at 7 years of children diagnosed with autism at age 2: predictive validity of assessments conducted at 2 and 3 years of age and pattern of symptom change over time. *Journal of child psychology* **46** (5) 500-513

Chiang, C., Soong, W. Tzu-Ling, L., Rogers, S. (2008) Non-verbal communication skills in young children with autism. *Journal of autism and developmental disorders*. **38** (10) 1898-1906

Chinawa, J.M., Manyike,P.C., Aniwada, E. C., Chinawa, A.T., Obu, H. A., Odetunde, O. I., Nwokocha, A. D, Ibekwe, R.R. (2016) Prevalence and socioeconomic correlatesof autism among children attending primary and secondary schools in South East Nigeria. *African Health sciences* **16** (4)

Christon, L. M., Mackintosh, V. H., Myers B. J. (2010) Use of complementary and alternative (CAM) treatments by parents of children with autism spectrum disorders. *Research in Autism Spectrum Disorders* **4** (2) 249-259

Clough, P and Nutbrown, C. (2012) A student's guide to Methodology. London, Sage publications London

Conn, C. (2014) Investigating the social engagement of children with autism in mainstream schools for the purpose of identifying learning targets. *Journal of research in special educational needs*, **14** (3) 153-159

Cook, B. G. (2001) A comparison of teachers' attitudes toward their included students with mild and severe disabilities. *The journal of special education* **34** (4) 203-213

Crane, L., Chester,J., Goddard, L., Henry, L., Hill, E. (2016) Experiences of autism diagnosis: A survey of over 1000 parents in the United Kingdom. *Autism* **20** (2) 153-162

Crosland, K. & Dunlap, G. (2012) Effective strategies for the inclusion of children with autism in general education classrooms. *Behaviour Modification* **36** (3) *251-269*

Dada, U. M., Okewole, N. O., Ogun, C. O. and Bello-Mojeed, M. A. (2011) Factors associated with a caregiver burden in a child and adolescent psychiatric facility in Lagos, Nigeria: a descriptive cross sectional study. *BMC Pediatrics* **11** (110)

Daley, T. C. (2002) The need for Cross-cultural research on the pervasive developmental disorders. *Transcultural Psychiatry* **39** (34) 531-550

Daley, T. C. (2004) From symptom recognition to diagnosis: children with autism in urban India. *Social Science & Medicine* **58** *1323-1335*

Darrou, C., Pry, R., Pernon, E., Michelon, C., Aussiloux, C. & Baghdadli. A. (2010) Outcome of young children with autism: Does intervention influence developmental trajectories? *Autism,***14** (6) 663-677

Desai, M. U., Divan, G., Wertz, F., J. & Patel, V. (2012) The discovery of autism: Indian parents' experiences of caring for their child with an autism spectrum disorder. *Transcultural Psychiatry* **49** (3-4) 613-637

Dillenburger, K., Jordan, J.D., Mckerr, L., Devine, P. Keenan, M. (2013) Awareness and knowledge of autism interventions: A general survey. *Research in Autism Spectrum Disorders* **7** 1558-1567

Donohue, D. and Bornman, J. (2014) The challenges of realising inclusive education in South Africa. *South African journal of education* **34** (2) 1-14

Drew, C. J.; Hardman, M. I.; Hosp J. I. (2008) Designing and conducting research in education. London, Sage Publication

Duarte, S. C., Bordin, I. A. S., Oliveira, A. & Bird, H. (2003) The CBCL and the identification of children with autism and related conditions in Brazil: Pilot findings. *Journal of Autism and Developmental Disorders.* **33** (1) 31-37

Dunn, W., Saiter, J., Rinner, L. (2002) Asperger syndrome and sensory processing: A conceptual model and guidance for intervention planning. *Focus on autism and other developmental disabilities* 17 (2)

Durkin, M. S. Hasan, Z. M., & Hasan, K. Z. (1995) The ten questions screen for childhood disabilities: its uses and limitations in Pakistan, *Journal of Epidemiology and Community Health*, **49** 431-436

Easton, G. (2010) Critical realism in case study research. *Industrial marketing management* **39** 118-128

Ede, E., O., S. & Obiunu, J. J. (2006) The dilemma of primary school attendance in Nigeria. *Journal of Instructional Psychology,* **33** (2) 147-153

Ehlers, S., Gillberg, C. and Wing, L. (1999) A screening Questionnaire for Asperger Syndrome and other High-functioning Autism Spectrum Disorders in school age children. *Journal of Autism and developmental disorders* **29** (2) 129-141

Eldar, E., Talmor, R. & Wolf-Zukerman, T (2010) Success and difficulties in the individual inclusion of children with Autism spectrum disorder (ASD) in the eyes of their coordinators. *International journal of inclusive education* **14** (1) 97-114

Eleweke, C. J. & Rodda, M. (2002) The challenge of enhancing inclusive education in developing countries. *International Journal of Inclusive Education,* **6** (2) 112-126

Elsabbagh, E., Divan, G., Koh, Y., Kim, Y., Kauchali, S., Marcín, C., Montiel-Nava, C., Patel, V., Paula, C., Wang, C., Yasamy, M., Fombone, E. (2012) Global prevalence of autism and other pervasive developmental disorders. *Autism research* **5** (3) 160-179

Englebrecht, P., Nel, M., Smit, S. & van Deventer, M. (2016) The idealism of education policies and the realities in schools: the implementation of inclusive education in South Africa, *International journal of inclusive education,* **20** (5) 520-535

Eskay, M., Onu, V.C., Igbo, J.N., Obiyo, N., Ugwuanyi, L. (2012) Disability within the African culture. *US-China Education Review, B. 4* 473-484

Eskay, M. Eskay, Uma, (2012) Educating people with special needs in Nigeria: Present and future perspectives. *US-China Education review B 10* 898-906

Esposito, G., Nakazawa, J., Venuti, P. & Bornstein, M. H. (2012) Perceptions of distress in young children with autism compared to typically developing children: A cultural comparison between Japan and Italy. *Research in Developmental Disabilities* **33** 1059-1067

Evans, B. (2013) How autism became autism: The radical transformation of a central concept of child development in Britain. H*istory of the human sciences* **26** (3) 3-31

Fabunmi, M. (2005) Historical analysis of educational policy formulations in Nigeria: Implications for educational planning and policy. *International journal of African and African American studies* **IV** (2) 1-6

Fakolade, O. A., Adeniyi, S. O. & Tella, A. (2009) Attitude of teachers towards the inclusion of special needs children in general education classroom: the case of teachers in some selected schools in Nigeria. *International Electronic Journal of Elementary education,* **1** (3) 155-169

Fareo, D. and Ojo, O. (2013) Impact of facilities on academic performance of students with special needs in mainstream public schools in Southwestern Nigeria. *Journal of research in special educational needs*. **13** (2) 159-167

Farrell, P. (2000) The impact of research on developments in inclusive education. *International journal of inclusive education,* **4** (2)

Farrell, P., Dyson, A., Polat, F., Hutchenson, G. and G, F. (2007) Inclusion and achievement in mainstream schools. *European journal of Special needs education* **22** (2) pp. 131-145

Feinstein, A. (2010) A History of Autism: Conversations with the pioneers. Wiley-Blackwell, Chichester, UK.

Ferguson, D. L. (2008) International trends in inclusive education: the continuing challenge to teach each one and everyone. *European Journal of special needs education* **23** (2)

Ferraioli, S. J. & Harris S. L. (2011) Effective educational inclusion of students on the autism spectrum. *J. Contemporary Psychotherapy* **41**

Fletcher, A. J. (2017) Applying critical realism in qualitative research: methodology meets method. *International journal of social research methodology.* **20** (2)

Florian, L. (1998) An examination of the practical problems associated with the implementation of inclusive education policies. *Support for learning* **13** (3)

Florian, L. and Rouse, M. (2010) Teachers' professional learning and inclusive practice. In confronting obstacles to inclusion. International responses to developing inclusive education. Edited by Rose, R (2010) Published by Routledge Taylor & Francis Group, London and New York.

Florian, L. (2014) What counts as evidence of inclusive education? European journal of special needs education **29** (3)

Fombonne, E. (2005) The Changing Epidemiology of Autism. *Journal of Applied Research in Intellectual disabilities* **18** 281-295

Fountain, C., Winter, A. S., and Bearman, P. S. (2012) Six developmental trajectories characterize children with autism. *Pediatrics **129** (5)*

Forlin, C. (2010) Teacher education for inclusion. In Confronting obstacles to inclusion. International responses to developing inclusive education. Edited by Rose, R (2010) Published by Routledge Taylor & Francis Group, London and New York.

Forlin, C. (2010) Inclusion: identifying potential stressors for regular class teachers. *Educational research,* 43 (3) 235-245

Forlin, C. & Chambers D. (2011) Teacher preparation for inclusive education: increasing knowledge but raising concerns. *Asia-Pacific journal of Teacher education* **39** (1)

Franz, L., Chambers, N., Isenburg, M., de Vries, P. J. (2017) Autism spectrum disorder in Sub-Saharan Africa: A comprehensive scoping review. Autism Research; early view: doi:10.1002/aur.1766

Frederickson, N., Jones, A. P. and Lang, J. (2010) Inclusive provision options for pupils on the autistic spectrum, *Journal of Research in Special Educational Needs*, **10**, (2)

Friedlander, D. (2008) Sam comes to school: Including students with autism in your classroom. The clearing house. **82** (3)

Frith, U. (2008) AUTISM: A very short introduction. Great Britain, Oxford University Press

Frith, U. (2012) Why we need cognitive explanations of autism. *The quarterly journal of experimental psychology,* **65** (11)

Frith, U (2013) Autism and dyslexia: A glance at over 25 years of research. *Perspectives on psychological science* **8** (6)

Fuandai, C. (2010) Catering for children with special needs in the regular classroom: Challenges and the way forward. *Edo (Nigeria) Journal of Counselling* **3** (1)

García-Primo P[1], Hellendoorn A, Charman T, Roeyers H, Dereu M, Roge B, Baduel S, Muratori F, Narzisi A, Van Daalen E, Moilanen I, de la Paz MP, Canal-Bedia R. (2014) Screening for autism spectrum disorder: State of the art in Europe. European Child Adolescence Psychiatry

Garuba, A. (2003) Inclusive education in the 21st century: Challenges and opportunities for Nigeria. *Asia Pacific Disability Rehabilitation Journal,* **14** (2) 191-200

Gavalda, J. M. S & Qinyi T. (2012) Improving the process of inclusive education in children with ASD in mainstream schools. *Procedia – Social and behavioural Sciences* **46** pp. 4072-4076

Ghana Education service (GES) (2006) Education Strategic Plan, Accra: Government publication

Gillham, B. (2000) Case study research methods. London, Continuum

Goin-Kochel, R. P., Mackintosh, V. H., Myers B. J. (2006) How many doctors does it take to make an autism spectrum diagnosis? *Autism* **10** (5)

Grix, J. (2004) The foundations of research. UK, Macmillan

Guldberg, K. (2010) Educating children on the autism spectrum: preconditions for inclusion and notions of 'best autism practice' in the early years. *British Journal of Special Education.* **37** (4)

Haller, B., Ralph, S., and Zaks, Z. (2010) Confronting obstacles to inclusion. How the US news media report disability. In Confronting obstacles to inclusion. International responses to developing inclusive education. Edited by Rose, R (2010) Published by Routledge Taylor & Francis Group, London and New York.

Hanson, E., Kalish, L. A., Bunce, E., Curtis, C., McDaniel, S., Ware, J., Petry, J (2007) Use of complementary and alternative medicine among children diagnosed with autism spectrum disorder. *Journal of autism and developmental disorders*. **36 (4)**

Hardy, I. & Woodcock, S. (2015) Inclusive education policies: discourses of difference, diversity and deficit. *International Journal of Inclusive Education* **19** (2)

Hart, J. E. & Whalon, K. (2012) Misbehaviour or missed opportunity? Challenges in interpreting the behaviour of young children with autism spectrum disorder. *Early Childhood Education Journal, DOI* **10**. 1007/s10643-012-0527-8

Harris, B. H., Barton, E. E., Albert, C. (2014) Evaluating Autism Diagnostic and Screening tools for culturally and Linguistic Responsiveness. *J. Autism Dev. Disord* **44** 1275-1287

Hill, E.L. and Frith, U. (2003) Understanding autism: Insights from mind and brain *Phil. Trans. The Royal society* **358** (1430) 281-289

Hilton, C., Graver, K., La Vesser, P. (2007) Relationship between social competence and sensory processing in children with high functioning autism spectrum disorders. *Research in autism spectrum disorders* **1** (2)

Hilton, C., Harper, J., Kueker, R., Lang, A., Abbacchi, A., Todorov, A., LaVesser, P. (2010) Sensory responsiveness as a predictor of social severity in children with high functioning autism spectrum diaorders. *Journal of autism and development disorders* **40** (8) 937-945

Hoffman, W., Konig, U., Heinzel-Gutenbrunner, M., Mattejat, F., Becker, K. & Kamp-Becker, I. (2013) Early identification of Asperger syndrome in young children. *Research in Developmental Disabilities.* **34** 640-649

Hornby, G. (2012) Inclusive education for children with special educational needs: A critique of policy and practice in New Zealand. *Journal of international and comparative education* **1** (1) 52-60

Howlin, P. (2006) Autism spectrum disorders. *Psychiatry* **5** (9) 320-324

Humphrey, N. and Lewis, S. (2008) 'Make me normal' The views and experiences of pupils on the autistic spectrum in mainstream secondary schools. *Autism*, **12** (1) 23-46

Humphrey, N. & Symes, W. (2011) Peer interaction patterns among adolescents with autistic spectrum disorders in mainstream schools settings, *Autism* **15** (4) 32-46

Humphrey, N. & Symes, W. (2013) Inclusive education for pupils with autistic spectrum disorders in secondary mainstream schools: teacher attitudes, experience and knowledge. *International journal of Inclusive Education* **17** (1) 32-46

Hus, V. & Lord, C. (2013) Effects of Child Characteristics on the Autism diagnostic –Interview revised: Implications for Use of Scores as a Measure of ASD severity. *Journal of Autism and Developmental Disorders,* **43** 371-381

Hussein, H., Taha, G., RA. & Almanasef, A. (2011) Characteristics of autism spectrum disorders in a sample of Egyptian and Saudi patients: transcultural cross sectional study. *Child and Adolescent Psychiatry and Mental Health,* **5** (34) 1-12

Igwe, M. N., Bakare, M. O., Agomoh, A. O., Onyeama, G. M., and Okonkwo, K. O. (2010) Factors influencing knowledge about childhood autism among final year undergraduate medical nursing and psychology students of University of Nigeria Enugu statw, Nigeria. *Italian journal of pediatrics* **36** (44) 1-7

Igwe, M. N., Ahanotu, A. C., Bakare, M. O., Achor, J. U., Igwe, C. (2011) Assessment of knowledge about childhood autism among paediatric and psychiatric nurses in Ebonyi state, Nigeria. *Child and Adolescent psychiatry and mental health*. **5** (1)

Imam, H. (2012) Educational policy in Nigeria from the colonial era to the post- independence period. *Italian journal of sociology of education* **1** 181-204

Inglese, M.D. (2009) Caring for children with autism spectrum disorder, Part II: Screening, diagnosis and management. *Journal of Pediatric Nursing* **24** (1) 49-59

Johnson, C. P. and Myers, S. M. (2007) Identification and evaluation of children with Autism Spectrum Disorders *Pediatrics* **120** (5) 1183-1215

Johnson, R., and Onwuegbuzie, A. (2004) Mixed methods research: A research paradigm whose time has come. *Educational researcher* **33** (7) 14-26

Jones, G. (2006) Department for Education and skills/department of health. Good practice guidance on the education of children with autistic spectrum disorder.

Jones, G., English, A., Guldberg, K., Jordan, R., Richardson, P., Waltz, M. (2009) Educational provision for children and young people on the autism spectrum living in England. England, Autism Education trust.

Jordan, R. (2008) Autistic spectrum disorders: a challenge and a model for inclusion in education. *British Journal of Special Education,* **35** (1) 11-15

Jordan, A., Schwartz, E. McGhie-Richmond, D. (2009) Preparing teachers for inclusive classrooms. *Teaching and teacher education*. **25** 535-542

Kakai, H., Maskarinec, G., Shumay, D. (2003) Ethnic differences in choices of health information by cancer patients using complementary and alternative medicine: An exploratory study with corresponding analysis. Soc Sci Med **56:** 851-862

Kakooza-Mwesige, A., Ssebyala, K., Karamagi, C., Kiguli, S., Smith, K., Anderson, M., Croen, L., Trevathan, E., Hansen, R., Smith, D., Grether, J., (2013) Adaptation of the "ten questions" to screen for autism and other neurodevelopmental disorders in Uganda. *Autism* **0** (0) 1-15

Kasari, C. & Smith, T. (2013) Intervention in schools for children with autism spectrum disorder: Methods and recommendations*. Autism* **17** (3) 254-267

Kavale, K. A. and Forness S. R. (2000) History, rhetoric and reality analysis of the inclusion debate *Remedial and special education* **21** (5) 239-256

Kim, Y. S., Leventhal, B. L., Koh, Y.J., Fombomme, E, Laska, E., Lim, E., Gronker, R. (2011) Prevalence of autism spectrum disorders in a total population sample. American journal of psychiatry, **168** 1-9

King, M. and Bearman, P. (2009) Diagnostic change and the increased prevalence of autism. *International journal of epidemiology*. **38** (5) 1224-1234

Krasny, L., Williams, B., Provencal S, Ozonoff S. (2003) Social skills interventions for the autism spectrum: essential ingredients and a model curriculum. *Child Adolescence Psychiatry Clin. N. America* **12** (1) 107-122

Lagunju, I. A., Bella-Awusah, T. T. and Omigbodun O. O. (2014) Autistic disorder in Nigeria: profile and challenges to management. *Epilepsy & behaviour,* **39** 126-129

Lauritsen, M.B. (2013) Autism spectrum disorders. *Eur Child Adolesc Psychiatry.* **22** 37-42

Leblanc, L., Richardson, W. & Burns, A. (2009) Autism Spectrum Disorder and the inclusive classroom: Effective training to enhance knowledge of ASD and evidence-based practices. *Teacher education and special education: The journal of the teacher education division of the council for exceptional children Online first.* **32** (2) 166-179

Levy, E. S., Mandell, D. Schultz, R. T. (2009) Autism. *Lancet* **374** (9701) 1627-1638

Leyser, Y. and Kirk, R. (2004) Evaluation inclusion: an examination of parent views and factors influencing their perspectives. *International journal of disability, development and education* **51** (3) 271-285

Lindsay, G. (2003) Inclusive education: a critical perspective. *British journal of special education* **30** (1) 3-9

Lindsay, G. (2007) Educational psychology and the effectiveness of inclusive education/mainstreaming. *British journal of educational psychology* **77** (1) 1-24

Lindsay, S., Proulx, M., Thomson, N., and Scott, H. (2013) Educator's challenges of including children with autism spectrum disorder in mainstream classrooms. *International journal of disability, development and education* **60** (4) 347-362

Linton, A., Germundsson, P. Heimann, M. and Danemark, B. (2013) Teachers' social representation of students with Asperger diagnosis, *European Journal of special needs education* **28** (4) 392-412

Livanis, A. and Mouzakitis, A. (2010) The treatment validity of autism screening instruments. *Assessment for Effective Intervention* **35** (4) 206-217

Lomofsky, L. & Lazarus, S. (2001) South Africa: First steps in the development of an inclusive education system. *Cambridge journal of education* **31** (3) 303-317

Lopez, B., Lincoln, A., Ozonoff, S. Lai, Z. (2005) Examining the relationship between executive functions and restricted repetitive symptoms of autistic disorder. *Journal of autism and developmental disorders.* **35** (4) 445-460

Lord, C. (2010) Autism from research to practice. *Am Psychology* **65** (8) 815-826

Lord, C., Luyster, R., Guthrie, W., Pickles, A. (2012) Patterns of developmental trajectories in toddlers with autism spectrum disorder. *Journal of consulting and clinical Psychology* **80** *(3)* 477-489

Maglione, M. A., Gans, D, Das, L., Timbie, J. Kasari, C. (2012) Nonmedical interventions for children with ASD: Recommended guidelines and further research needs. *Pediatrics* **130** (Supplement 2) 169-178

Mandell, D. and Novak, M. (2005a) The role of culture in families' treatment decisions for children with autism spectrum disorders. *Mental retardation and developmental disabilities reviews* **11** 110-115

Mandell, D. S., Palmer, R. (2005) Differences among states in the identification of Autistic Spectrum Disorders. *Arch Pediatr Adolesc med/***159**

Mandell, D. S., Maytali, M. Zubritsky, C. D. (2005) Factors associated with age of diagnosis among children with autism spectrum disorders. *Pediatrics* **116** (6)

Mandy, W., Charman, T., Puura, K., and Skuse, D, (2014) Investigating the cross-cultural validity of DSM-5 autism spectrum disorder: Evidence from Finish and UK samples. *Autism* **18** (1) 45-54

Marchant, P. (2006) Autistic Spectrum Disorders and Asian children. *British Journal of Educational Studies,* **54** (2) 239-244

Marshall, J. (2000) Critical reflections on the cultural influences in identification and habilitation of children with speech and language difficulties. *International Journal of Disability, Development and Education,* **47** (4) 355-369

Matson J. L., Nebel-Schwalm, M., Matson, M. L. (2007) A review of methodological issues in the differential diagnosis of autism spectrum disorders in children. *Research in Autism Spectrum Disorders in children.* **1** 38-54

Matson, J. L. & Shoemaker M. (2009) Intellectual disability and its relationship to autism spectrum disorders. *Research in developmental disabilities* **30** 1107-1114

Matson, J. L., Kozlowski, A. M. (2011) The increasing prevalence of autism spectrum disorders. *Research in Autism Spectrum Disorders.* **5** 418-425

Matson, J. L., Worley, J. A., Fodstad, C. J., Chung, K., Suh, D., Kyung Jhin, H., Ben-Itzchak, E., Zachor, A. D. & Furniss, F. (2011) A multinational study examining the cross cultural differences in reported symptoms of autism spectrum disorders: Israel, South Korea, the United Kingdom and the United States of America. *Research in Autism Spectrum Disorders* **5** 1598- 1604

Matson, J. L. & Goldin, R.L. (2013) Comorbidity and autism: Trends, topics and future directions. *Research in autism spectrum disorders* **7** 1228-1233

Matson, L., Cervantes, P. (2014) Commonly studied comorbid psychopathologies among persons with autism spectrum disorder. *Research in developmental disabilities* **35** (5) 952-962

Mawle, E. and Griffiths, P. (2006) Screening for autism in pre-school children in primary care: Systematic review of English language tools. *International journal of Nursing studies* **43** (5) 623-636

May, T., Cornish, K., Rinehart, N. (2014) Does gender matter? A one year follow-up of autistic, attention and anxiety symptoms in high-functioning children with autism spectrum disorder. Journal of autism developmental disorders, **44** 1077-1086

McConnell, S. R. (2002) Interventions to facilitate social interaction for young children with autism: Review of available research and recommendations for educational intervention and future research. *Journal of autism and developmental disorders*, **32** (5) 351-372

McLeskey, J. and Waldron, N. L. (2011) Educational programs for elementary students with learning disabilities: Can they be both effective and inclusive? *Learning disabilities research & practice* **26** (1) 48-57

McLeskey, J. (2014) Handbook of Effective Inclusive Schools: Research and Practice

Edited by James McLeskey, Nancy L. Waldron, Fred Spooner, Bob Algozzine New York, Routledge

McLeskey, J., Waldron, N. L. and Redd, L. (2014) A case study of a highly effective, inclusive elementary school. *The journal of special education* **48** (1) 59-70

McLeskey, J. and Waldron, N. (2015) Effective leadership makes schools truly inclusive. *Kappan magazine* **96** (5), 68-73

Meenakshi S., Anke de Boer & Sip Jan Pijl (2015) Inclusive education in developing countries: a closer look at its implementation in the last 10 years, *Educational Review*, **67** (2) 179-190

Memari, A., Ziaee, V., Mirfazeli, F. and Kordi, R. (2012) Investigation of autism comorbidities and associations in a school-based community sample. *Journal of child and adolescent psychiatric nursing*. **25** (2) 84-90

Miles, M.B. & Huberman, A. M. (1994) (2nd ed.) Qualitative data analysis An expanded source book. S London, Sage publications.

Ming, X., Brimacombe, M., Chaaban, J (2008) Autism spectrum disorders: Concurrent clinical disorders. *Journal of child neurology* **23** (1) 6-13

Mittler, P. (2000) Working towards inclusive education social contexts. Oxon, UK, David Fulton publishers

Mundy, P. and Crowson M. (1997) Joint attention and early social communication: Implication for research on intervention with autism. *Journal of autism and developmental disorders* **27** (6)

Myers, S. M. and Johnson, C. P. (2007) Management of children with Autism Spectrum Disorders. *Pediatrics* **120** (5) 1183-1215

Myles, B., Dunn, W., Rinner, L. Hagiwara, T., Reese, M., Huggins, A. and Becke, S. (2004) Sensory issues in children with Asperger syndrome and autism. *Education and training in developmental disabilities* **39** (4) 283-290

National Autistic Society (NAS) (2007) Think differently – act positively: Public perceptions of autisms. London. National autistic society.

National Policy on Education (2008) (5th Ed.) Lagos, Nigeria NERDC

National Policy on Special Needs education in Nigeria. (2015) Abuja, Federal ministry of Education

Ni, P. Gabriel-Brisibie, C. (2015) Awareness of autism amongst primary school teachers in Yenogoa city, Bayelsa State. Niger . *J. Paed* **42** (1) 46-50

Niaz, M. (2008) A Rationale for mixed methods (integrative) research programmes in education. *Journal of Philosophy of education* **42** *(2)* 287-305

Norbury, C. F. & Sparks, L. (2013) Difference or disorder? Cultural issues in understanding neurodevelopmental disorders. *Developmental Psychology* **49** (1) 45-58

Norwich, B. (2013) Addressing tensions and dilemmas in inclusive education; working with uncertainty. London, Routledge,

Norwich, B. (2013) Recognising value tensions that underlie problems in inclusive education. *Cambridge Journal of education* **44** (4)

Obiakor, F. E. and Offor, M. T. (2011) Special education provision in Nigeria: Analyzing context, problems and prospects. International journal of special education **26** (1) 25-31

Obiakor, F., & Afolayan, M., (2012) Analysis and opinion: Building paradigms for the change of special education in Nigeria. *Journal of international special needs education*. **15** (2) 44-55

O'Brien, G. & Pearson, J. (2004) Autism and learning disability. *Autism* **8** (2) 125-140

Odunsi, R (2012) What factors influence parents' choice of Educational Placement for Children with Autistic Spectrum Disorders in Nigeria. Med. Autism in Children. University of Birmingham. Unpublished.

Odusanya OO, Tayo OO (2001) Breast cancer knowledge, attitudes and practice among nurses in Lagos, Nigeria. *Acta Oncol* **40** *(7):844–848*

Okobia, M. N., Bunker, C. H., Okonofua F. E., Osime, U. (2006) Knowledge, attitude and practice of Nigeria women towards breast cancer: A cross-sectional study. World journal of surgical oncology **4** (11)

Okolo, C. N. (2001) Primary school children with learning difficulties in Lagos State: Teachers' perception of provision and practice. Phd. Thesis unpublished. Department of education, Brunel University

Olanrewaju, J. S. (2015) Political parties and poverty of ideology in Nigeria. *Afro Asian Journal of social sciences* **VI** (3)

Omotayo, D.M., Chioma, I. & Maduewesi (2008) Management of Universal basic education scheme (U.B.E.) for qualitative education in Nigeria. *Education* **129** *(2),* 308-314

Omotola, J. S. (2009) Nigerian parties and political ideology. *Journal of alternative perspectives in the social sciences* **1**(3) 612-634

O'Rourke (2015) Inclusive schooling: if it is so good – why is it so hard to sell? *International journal of inclusive education* **19** (5) 530-546

Oshodi, Y., Olagunju, A., Oyelohunnu, M., Campbell, E., Umeh, C., Aina, O., Oyibo, W., Lesi, F., Adeyemi, J. (2016) Autism spectrum disorder in a community-based sample with neurodevelopmental problems in Lagos, Nigeria. *Journal of public health in Africa* **7** (559)

Panerai, S., Zingale, M., Trubia, G., Finocchiaro, M., Zuccarello, R., Ferri, R. Elia, M. (2009) Special education versus inclusive education: The role of the TEACCH program. *Journal of autism developmental disorders*. **39** (6) 874-882

Park, M. and Chitiyo, M. (2011) An examination of teacher attitudes towards children with autism. *Journal of research in Special Educational needs* **11** (1) 70-78

Parsons, S., Lewis, A., Davison, I., Ellins, J. and Robertson, C. (2009) Satisfaction with educational provision for children with SEN or disabilities: a national postal survey of the views of parents in Great Britain. *Educational review* **61** (1) 19-47

Parsons, S., Guldberg, K., MacLeod, A., Jones, G., Prunty, A. & Balfe, T. (2011) International review of the best evidence on best practice in educational provision for children on the autism spectrum. *European Journal of Special Needs Education,* **26** (1) 47-63

Parsons, S., Guldberg, K., MacLeod, A., Jones, G., Prunty, A. & Balfe, T. (2009) International review of the literature evidence of best practice provision in the education of persons with autistic spectrum disorders. *National Council for special Education.*

Polat, F. (2011) Inclusion in education: A step towards social justice. *International Journal of Educational Development,* **31** 50-58

Punch, K. F. (2003) Survey research: the basics. London, Sage publications.

Ravet, J. (2011) Inclusive/exclusive? Contradictory perspectives on autism and inclusion: the case for an integrative position. *International journal of inclusive education* **15** (6) 667-682

Ravindran, N. and Myers, B. J. (2012) Beliefs and practices regarding autism in Indian families now settled abroad: An internet survey. *Focus on Autism and other Developmental Disabilities* **28** (1) 44-53

Ravindran, N. and Myers, B. J. (2012) Cultural influences on perceptions of Health, Illness, and Disability: Review and focus on autism. *Journal child Family study* **21** 311-319

Reed, P., Osborne, L. A. and Corness, M. (2010) Effectiveness of special nursery provision for children with autism spectrum disorders. *Autism* 67-82

Reilly, C., Campbell, A. and Keran, P. (2009) Screening for Asperger syndrome in school-age children: issues and instruments. *Educational Psychology in Practice* **25** (1) 37-52

Riehl, C. J. (2000) The Principal's role in creating inclusive schools for diverse students: A review of normative, empirical, and critical literature on the practice of educational administration. *Review of Educational research* **70** (1) 55-81

Robertson, K., Chamberlain, B. and Kasari, C. (2003) General education teachers' relationships with included students with autism. *Journal of autism and developmental disorders* **33** (2)

Robson, C. (2002) Real world research. 2nd edition. Oxford, UK. Blackwell publishing,

Robson, C. (2011) Real world research. 3rd edition. Oxford, UK. Blackwell publishing,

Rosa, M. E. & Tudge, J. (2013) Urie Bronfenbrenner's theory of human development: its evolution from ecology to bioecology. *Journal of family theory and review* **5** pp. 243-258

Rose, R. (2001) Primary school teacher perceptions of the conditions required to include pupils with special educational needs. *Educational review,* **53** (2) 147-156

Rose, R., Garner,P. & Farrow B. (2019) Developing inclusive education policy in Sierra Leone: A research informed approach. In Halder, S. and Argyopoulos, V. (Eds.) *'Inclusive practices, equity and access for individuals with disabilities: Insights from educators across world.'* London: Palgrave

Rosenberg, R. E., Landa, R., Law, J. K., Stuart, E. A. and Law, P. A. (2011) Factors affecting age at initial autism spectrum disorder diagnosis in a national survey. Autism research and treatment **2011** ID 874619

Runswick-Cole, K. (2011) Time to end the bias towards inclusive education? *British journal of special education* **38** (3) 112-119

Russell, G., Steer, C. Golding, J. (2011) Social and demographic factors that influence the diagnosis of autistic spectrum disorders. Soc Psychiatry epidemiology **46** 1283-1293

Russell, G. and Norwich, B. (2012) Dilemmas, diagnosis and de-stigmatization: Parental perspectives on the diagnosis of autism spectrum disorders. *Clinical child psychology and psychiatry* **17** (2) 229-245

Sansosti, J. M. and Sansosti, F. (2012) Inclusion for students with high-functioning Autism Spectrum Disorders: Definitions and decision making. *Psychology in the schools. **49** (10)* 917-931

Sayer, A. (1992) Method in social science: A realist approach. (2nd edition) London Routledge

Sayer, A. (2000) Realism and social science London, Sage

Scheeren, A. M., Koot, H. M. Begeer, S. (2012) Social interaction style of children and adolescents with high-functioning autism spectrum disorder. Journal of Autism Dev. Disord **42** 2046-2055

Schanding, Jr. G. T., Nowell, K. P. & Goin-Kochel, R. P. (2012) Utility of the Social Communication Questionnaire-Current and Social Responsiveness Scale as Teacher- Report screening tools for Autism Spectrum Disorders. *Journal of Autism Development Disorders* **42** 1705-1716

Scott, F. J., Baron-Cohen, S., Bolton, P. and Brayne, C (2002) The CAST (Childhood Asperger Syndrome Test): Preliminary development of a UK screen for Mainstream Primary-School-Age children. *Autism* **6** (1) 9-31

Segall, M. J. & Campbell, J. M. (2012) Factors relating to education professionals' classroom practices for the inclusion of students with autism spectrum disorders. *Research in Autism Spectrum Disorders* **6** 1156-1167

Segall, M. J. & Campbell, J. M. (2014) Factors influencing the educational placement of students with autism spectrum disorders. *Research in Autism Spectrum Disorders* **8** p**.** 31-43

Shattuck, P.T. and Grosse S.D. (2007) Issues related to the diagnosis and treatment of autism spectrum disorders*. Mental retardation and developmental disabilities research reviews,* **13** 129-135

Shore, S. (2001) Steven Shore: understanding the autism spectrum- What teachers need to know. *Intervention in schools and clinic* **36** (5) 293-299

Solomon, R. (2013) Commentary on 'Autism Spectrum Disorders' *Current Problems in Pediatic Adolescent Health care* **43** *12-16*

Smith, D. J. (2010) Corruption, NGOs and development in Nigeria. Third world quarterly **31** (2) 243-258

Steiner, M. A., Goldsmith T. R., Snow, A. V., Chawarska, K. (2012) Practitioner's guide to assessment of autism spectrum disorders in infants and toddlers. *Journal of autism developmental disorders.* **42**

Steyn, B. and Le CouteurA. (2003) Understanding autism spectrum disorders. *Current Paediatrics* **13** 274-278

Sun, X., Allison, C., Auyeung, B., Baron-Cohen, S. & Brayne, C. (2013) A review of healthcare service and education provision of Autism Spectrum Condition in mainland China. *Research in Developmental Disabilities.* **34** 469-479

Sun, X., Allison, C., Auyeung, B., Matthews, F. E., Murray, S., Baron-Cohen, S. & Brayne, C. (2013) Service provision for autism in mainland China: A service providers' perspective. *Research in Developmental Disabilities,* **34** 440-451

Syriopoulou-Deli, C. K., Cassimos, D. C., Tripsianis, G. I. & Polychronopoulou, S. A. (2012) Teachers's perception regarding the management of children with autism spectrum disorders. *Journal of Autism and Developmental Disorders,* **42** 755-768

Tashakkori, A. & Teddlie, C. (1998) Mixed methodology: Combining qualitative and quantitative approaches. London, Sage publications

Tecchio, F., Benassi, F., Zappasodi, F., Gialloreti, L., Palermo, M., Seri, S., Rossini, P. (2003) Auditory sensory processing in autism: A magnetoencephalographic study. *Biological psychiatry* **54** (6) 647-654

Thomas, Gary (2011) A typology for the Case study in social science following a review of definition, discourse and structure. *Qualitative inquiry* **17** (6) 511-521

Thomas, Gary (2012) How to do your Case study: A guide for students and researchers. London, Sage publications

Thomas, Gary (2013) How to do your research project: A guide for students in education and applied social sciences. London, Sage publications

Thomas, G. (2013) "A Review of Thinking and Research about Inclusive Education Policy,

with Suggestions for a New Kind of Inclusive Thinking." *British Educational Research*

Journal **39** (3) 473-490

Tilahun, D., Fekadu, A., Tekola, B., Araya, M., Roth, I., Davey, B., Hanlon, C., Hoekstra, R. (2017) Ethiopian community health workers' beliefs and attitudes towards children with autism: Impact of a brief training intervention. Autism **0** (0) 1-11

Tiwari, A., Das, A. and Sharma, M. (2015) Inclusive education a "rhetoric" or "reality"? Teachers' perspectives and beliefs. *Teaching and teacher education* **52** 128-136

Robson, C. (2002) Real world research. 2nd edition. Oxford, UK. Blackwell publishing

Trembath, D. Balandin, S. & Rossi, C. (2005) Cross-cultural practice and autism. *Journal of intellectual & Developmental Disability* **30** (4) 240-242

Tudge, J., Mokrova, I., Hatfield, B., Karnik, R. (2009) Uses and misuses of Bronfenbrenner's bioecological theory of human development. *Journal of family theory & review* **1** 198-210

Uba, C. D. & Nwoga, K. A. (2016) Understanding stigma from a sociocultural context: mothers' experience of stigma directed towards children with special educational needs. *International journal of inclusive education* **20** (9)

Uko-Aviomoh, E. E., Okoh, E. & Omatseye, B. O. (2007) Universal basic education in Nigeria: an appraisal. *Education,* **127** (4) 558-568

UNESCO (1990) World Declaration on Education for All and Framework for Action to Meet Basic Learning Needs. International Consultative Forum on Education for All. Paris: UNESCO

UNESCO (2005) Guidelines for inclusion: Ensuring access to Education for All. UNESCO, France

UNESCO (2016) Leaving no one behind: How far on the way to universal primary and secondary education. UNESCO. France

Venker, C. E. Ray-Subramanian, C. E., Bolt, D. M., Weismer, S. E. (2014) Trajectories of Autism severity in early childhood. *Journal of autism and developmental disorder* (44) 546-563

Volkmar, R. & Pauls, D. (2003) Autism. *The Lancet* **362**

WHO (2011) World report on disability.

Wiggins, L., Robins, D., Bakeman, R., Adamson, L. (2009) Sensory abnormalities as distinguishing symptoms of autism spectrum disorders in young children. *Journal of autism and developmental disorders* **39** (7) 1087-1091

Wilkinson, L. (2010) School-age children with autism spectrum disorders: screening and identification. *European Journal of Special Needs Education,* **25** (3) 211-223

Wilkinson, A. L. (2010) Facilitating the identification of autism spectrum disorders in school-age children. *Remedial and Special Education* **31** (5) 350-357

Williams, J and Brayne, C. (2006) Screening for autism spectrum disorders: what is the evidence? *Autism* **10** *(1)* 11-35

Williams, K., MacDermott, S. Ridley, G., Glasson, E. J. and Wray, J. A. (2008) The prevalence of autism in Australia. Can it be established from existing data? *Journal of Paediatrics and Child health* **44** 504-510

Wing, L and Potter, D. (2002) The Epidemiology of autistic spectrum disorders: Is the prevalence rising? *Mental retardation and developmental disabilities research reviews* **8** 151-161

Young, R. L., Rodi, M. L. (2014) Redefining Autism Spectrum Disorder: The implications of the proposed DSM-5 criteria for Autism Spectrum Disorders. *Journal of autism and developmental disorder* **44** (4) 758-765

Yin, R. (2014) Case study research: Design and methods 5th ed. California, Sage

Zaroff, C. M. and Uhm, S. Y. (2012) Prevalence of autism spectrum disorders and influence of country measurement and ethnicity. *Soc. Psychiatry epidemiology* **47** (3) 395-398

Appendices

Appendix 1

Domain 1: Impairments in social interaction

Question 5: Children with autism have marked impairment in use of multiple non-verbal behaviours such as eye to eye contact, facial expression, body postures and gestures during social interaction?

 (a) True (b) False (c) Don't know

Question 6: Children with autism fail to develop peer relationship appropriate for developmental age?

(a) True (b) False (c) Don't know

Question 7: Children with autism lack spontaneous desire to share enjoyment, interest or activities with other people?

(a) True (b) False (c) Don't know

Question 8: Children with autism lack social or emotional reciprocity?

(a) True (b) False (c) Don't know

Question 9: Children with autism stare into open space and not focus on anything specific?

(a) True (b) False (c) Don't know

Question 10: Children with autism can appear as if deaf or dumb?

(a) True (b) False (c) Don't know

Question 11: Children with autism exhibit loss of interest in the environment and surroundings?

(a) True (b) False (c) Don't know

Question 12: Children with autism don't smile socially.

(a) True (b) False (c) Don't know

Domain 2: Impairments in communication

Question 13: Children with autism have delay or total lack of development of spoken language?

(a) True (b) False (c) Don't know

Domain 3: Obsessive and repetitive behaviour

Question 14: Children with autism display stereotyped and repetitive movement (e.g. hand or finger flapping or twisting)?

(a) True (b) False (c) Don't know

Question 15: Children with autism may be associated with abnormal eating habit?

(a) True (b) False (c) Don't know

Question 16: Children with autism have persistent preoccupation with parts of objects?

(a) True (b) False (c) Don't know

Question 17: Children with autism have love for regimented routine activities?

(a) True (b) False (c) Don't know

Domain 4: Other information about ASD

Question 18: Autism is on a continuum from very severe (with no speech) to mild with speech?

(a) True (b) False (c) Don't know

Question 19: Children with autism can be educated in mainstream schools?

(a) True (b) False (c) Don't know

Question 20: Autism could be associated with mental retardation?

(a) True (b) False (c) Don't know

Letter to Headteachers

<div align="right">
School of Education,

Boughton Green Road,
</div>

Northampton. NN2 7AL. UK

Date: 16/10/13

Dear Sir/Madam,

My name is Remi Odunsi and I am a Phd. (autism education) student of the above University. From the research for my Master degree in autism in children, I discovered that there is very little awareness and knowledge of autism in the general population of Nigeria. Many of the parents I interviewed had to wait for a long time or go abroad to receive diagnosis for their children. The children diagnosed fell on the severe end of the autism continuum but there are children at the mild end who are in mainstream schools who have not been identified. These children would be struggling and without the right teaching strategies never achieve their potential. Hence I decided to explore the knowledge and understanding of autism among teachers in mainstream primary schools.

My main reason for choosing your school and other schools in your local authority is to build on the work that has already been done by DIFN in Special educational needs (SEN) in the area. I intend to start my research by giving all the teachers questionnaires to answer.

I request your consent to give the teachers the questionnaires and interview them at the school. Once your consent is given and the teachers given the questionnaires, they may withdraw consent from the research by not completing the questionnaires. I hope to share the outcomes of the study with you and the teachers.

I thank you for your support and look forward to working with you and the teachers.

Yours sincerely,

Remi Odunsi

Request to Participate in Research – Teachers' Understanding of Autism

Dear Colleague,

I'm writing to you to ask for your help with regard to the work I'm currently doing for my PhD in the education of children with autism, exploring the knowledge and understanding of autism among teachers in mainstream primary schools in Lagos, Nigeria.

As part of this work I need to know the current level of knowledge of autism among primary school teachers in your local government area. I would therefore be grateful if you would complete the attached questionnaire and I will collect them from the office of the headteacher as soon as possible, and by **October 30 2013** at the latest.

The questionnaire should take no more than 10-15 minutes to complete. The evaluation of the questionnaire is not looking at 'right' or 'wrong' answers, and is anonymous so I won't know whose questionnaire is which. All teachers in the Ipaja, Agege government primary schools will be given the questionnaires to complete.

If you do not wish to participate in this research, you can opt out by simply not completing/returning the questionnaire. However, I would be grateful if you did, as the more completed questionnaires I receive, the stronger my research will be. The information provided in the questionnaires will be taken to the UK and analysed by me. The data will only be used for this study and will be securely stored in the University.

Thank you very much in advance for your help with this.

Remi Odunsi

Research student

University of Northampton, UK

---I would be interested in taking part in the focus group. Please get in touch with me.

Name……………………………………………………………………………..

Telephone number…………………………………………………………….

Email address………………………………………………………………………

Code book for Teachers' questionnaire

Q1 Age (yrs.)   (1) 21-25   (5) 41-45   (9)60+

                  (2) 26-30   (6) 46-50

                  (3) 31-35   (7) 51-55

                  (4) 36-40   (8) 56-60

Q2 Gender   (1) Male   (2) Female

Q3 Qualifications (1) OND   (4) Master

   Unqualified   (2) HND   (5) Higher

                (3) Grad

   Qualified   (6) NCE   (9) Bsc.   (12) Phd.

                (7) Bed.   (10) PGD

                (8) BA   (11) MA

Q4 Experience   (1) > 5   (5) 21-25

   (yrs.)   (2) 6-10   (6) 26-30

                (3) 11-15   (7) 31-35

                (4) 16-20   (8) 36-40

Section 2

Q5	(1) True	(2) false	(3) I don't know
Q6	(1) True	(2) false	(3) I don't know
Q7	(1) True	(2) false	(3) I don't know
Q8	(1) True	(2) false	(3) I don't know
Q9	(1) True	(2) false	(3) I don't know
Q10	(1) True	(2) false	(3) I don't know
Q11	(1) True	(2) false	(3) I don't know
Q12	(1) True	(2) false	(3) I don't know

Q13	(1) True	(2) false	(3) I don't know
Q14	(1) True	(2) false	(3) I don't know
Q15	(1) True	(2) false	(3) I don't know
Q16	(1) True	(2) false	(3) I don't know
Q17	(1) True	(2) false	(3) I don't know
Q18	(1) True	(2) false	(3) I don't know
Q19	(1) True	(2) false	(3) I don't know
Q20	(1) True	(2) false	(3) I don't know

Coding of interview questions

Themes and Categories

Inclusive education

Understanding of inclusive education

Location of inclusive education

Access to Inclusive education

Placement

Type of Education

Stakeholders of inclusive education

Expected outcomes of inclusive education

Microsystem-Classroom

Location of classroom for children with Disability

Teachers required for children with disability

Staff required for children with disability

Pupils present with children with disability

Physical environment of children with disability

Resources for children with disability

Mesosystem School

Access to services from external agencies

Lack of input from external agencies

Education for young people with SEN

Education for young people with ASD

Exosystem

National policy

State policy

SUBEB directive

Macrosystem- National govt.

National SEN policy

Draft Inclusive education policy

Legislation

Economy

Provision of resources

Barriers to Inclusive education

No separate policy

Lack of funding

No training for staff

Buildings unsuitable

Low level of knowledge among staff responsible for policy

Lack of resources

Other children qualified for inclusive education e.g. girl-child

Expected Outcome for all Children educated together

Education for all

Acceptance by non-disabled children

Development of empathy in children

Confidence of teachers

Autism Spectrum disorders

Low level knowledge of ASD behaviour

Non-identification

No centre for diagnosis

No standardised cultural sensitive tools

Lack of successful role model- Temple Grandin in US

Changing classification

Lack of prevalence study

Attitude towards education of children with ASD

Positive: Need education

Acquisition or development of skills

Socialisation by mixing with other children

Children with mild ASD in mainstream

Children with severe ASD in inclusive units

Taught by regular teachers

Teachers increase in teachers' experience

Mechanisms in the context

Low level knowledge of ASD at all levels of social system

Lack of training for teachers

Lack of experience

Funding

Legislation

Non-identification of children with ASD

Lack of tools for identification.

No guidance framework

No centre to refer children to

Questions for semi-structured interviews

Inclusive education

What do you understand by the words 'inclusive education'?

What would (or does) inclusive education look like?

What would/does an 'inclusive classroom' or 'inclusive school' look like?

Who should be involved in making it happen – and how?

What are the benefits of inclusion?

What are the drawbacks?

What are the barriers to inclusion? Who do you think inclusive education policy will have an impact on?

How can they be involved in the formulation of the policy?

To what extent do you think the policy is implemented at schools?

What do you think are the reasons for the inclusive education policy not being fully implemented? What are the barriers?

Knowledge of ASD

What can you tell me about autism?

Why and how do people have autism?

How do you think children with autism are identified?

Do you think children with autism should be educated and why?

What do you think will be the outcome of their education?

How do you think this outcome can be achieved?

What is autism?

  Who does it affect?

How common (prevalence)?

What are the signs /characteristics?

Attitude to children with ASD

Where do you think children with autism should be taught and Why?

Who should teach them there and why?

Do you think that children with autism should be taught by specialist teachers in the classrooms?

What will having children with autism in mainstream classroom be like?

Can you interact with them as you do with others?

Can children with autism be taught along with other children?

Can they be taught in the same ways?

Do you know of any strategies that are helpful for learners with autism? If so what?

Practice of Inclusive education for people with ASD

Have you ever met a child with autism and in what circumstances? E.g. relative, student

Do you think the child with autism was happy or comfortable in the environment? Why?

Do you know what could have been done to make the child happy? How?

Do you think that teachers need any extra training on teaching children with autism? Why?

Do you think the classroom physical environment is alright for children with autism? Why?

Do you know how the environment can be improved to make it comfortable for children with autism?