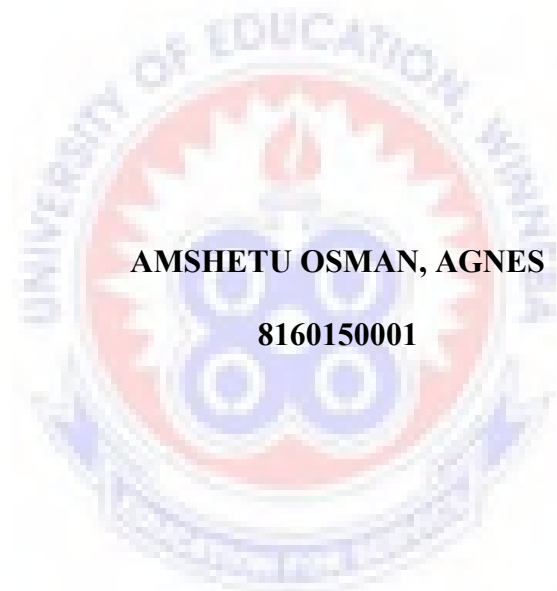**UNIVERSITY OF EDUCATION, WINNEBA**

TEACHERS' PERCEPTION ABOUT THE IMPLEMENTATION OF INCLUSIVE EDUCATION IN THREE EDUCATIONAL CIRCUITS IN TAMALE METROPOLIS IN GHANA

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A THESIS IN THE DEPARTMENT OF SPECIAL EDUCATION, FACULTY OF EDUCATIONAL STUDIES, SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES, UNIVERSITY OF EDUCATION, WINNEBA, IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF DEGREE OF MASTER OF PHILOSOPHY (SPECIAL EDUCATION) DEGREE

FEBRUARY 2019

DECLARATION

Student's Declaration

I, Amshetu Osman, Agnes, hereby declare that this dissertation is the result of my own original research. With the exception of quotations and references contained in published works which have all been identified and acknowledged, the entire dissertation is my own original work, and it has not been submitted, either in part or whole for another degree elsewhere.

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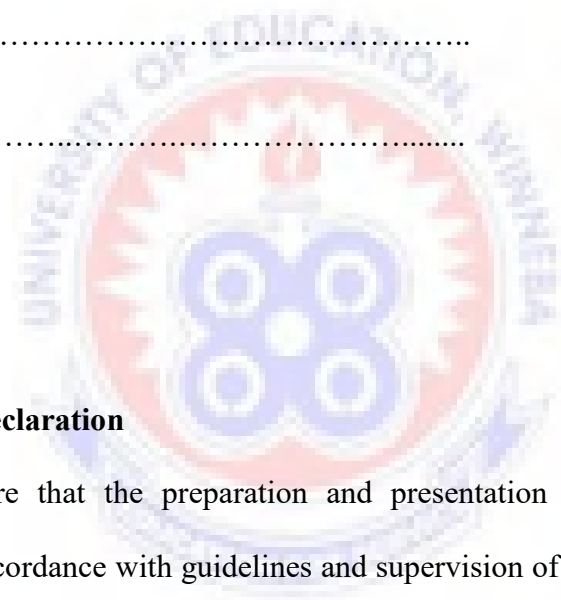
Supervisor's Declaration

I, hereby declare that the preparation and presentation of this dissertation was supervised in accordance with guidelines and supervision of dissertation laid down by the University of Education, Winneba.

**Supervisor's Name**: Prof. Samuel K. Hayford (PhD)

Signature: …………………..………………………..

Date: ………………..………..………………….........

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My profound gratitude also goes to Mr. Jonathan Dodoo and Mr. Patrick Kyeremeh for their inputs and contributions made towards the successful completion of the work. I wish to thank my mother Veronica Osman and sister, Wendy Osman for being there for me through tough times in my education and not forgetting my children, Edric Wedam Nonterah and Elaine Wemochiga Nonterah Finally, to all family, friends, course mates and loved ones who showed me care and true friendship in hard times. I say thank you and God richly bless you.
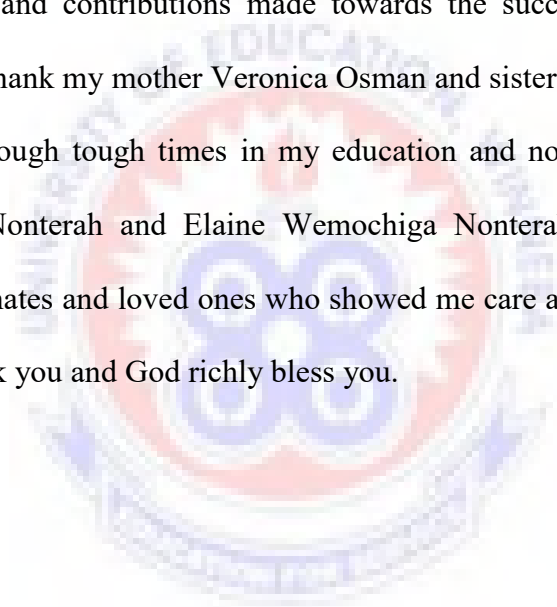
DEDICATION

I dedicate this work to my children, Edric Wedam Nonterah, and Elaine Wemochiga Nonterah not forgetting my mother, Veronica Osman, my father, Osman Assibi of blessed memory and my late husband, Herbert Nonterah.

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ABSTRACT

This study sought to investigate teachers" perception about the implementation of inclusive education in the Tamale Metropolis of Ghana. The study adopted a cross-sectional survey design which involved a sample size of 253 teachers selected through census technique. Questionnaire was used to gather the required data which were analysed using descriptive statistical methods involving frequency, percentages, means, and standard deviations. Also, inferential statistics such as t-test with a 0.05 level of significance was used to test the hypotheses. The findings of the study revealed that most teachers have knowledge to meet the needs of learners with learning disabilities. However, special educators were found to possess higher level of knowledge than their general/regular educators" counterpart even though the difference was not statistically significant. It was also revealed that lack of special recognition for teaching an inclusive class, large-class size, and insufficient teaching/learning materials were major challenges to the successful implementation of inclusive education in the metropolis. The study concludes that in spite of the government"s pronouncements and efforts to support inclusion, teachers would require more resources and other supports in the future to allay their concerns. The study recommends Tamale Metropolis Directorate of Ghana Education Service to collaborate with basic school heads in assisting teachers through the implementation of professional development/training programmes in order to employ adaptive instructional strategies to help children with disabilities.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The right to education is universal and it is enshrined in several declarations. These declarations include; the Education for All (2000), the World Summit on education for Children in 2000, the Standard Rules on Equalisation of Opportunities for Persons with Disabilities (1993), the UNESCO Salamanca Statement and Framework for Action (1994), the Dakar Framework for Action (2000), the Millennium Development Goals (MDGs, 2000) and many more. All these declarations were promising enactments. Central to these declarations is the inclusion of children with disabilities in regular education classroom.

Inclusive education has been internationally recognized as a philosophy for attaining equity, justice and quality education for all children, especially those who have been traditionally excluded from mainstream education for reasons of disability, ethnicity, gender or other characteristics (Nguyet & Ha, 2010). Inclusive education has been widely defined as a process intended to respond to students" diversity by increasing their participation and reducing exclusion within and from education (Nguyet & Ha, 2010). This definition considers inclusive education beyond disability issues and includes quality teaching, the attendance, involvement and achievement of all students, especially those who, for different reasons, are excluded or at risk of being marginalized (UNESCO, 2009).

Gyimah (2010), Agbenyega and Deku (2011) have identified some key challenges to teachers" readiness to accept accommodating children with disability who are unable to cope with academic work, in the regular classroom as lack of training, teacher

attitudes, knowledge and skills, lack of specialised teaching skills, negative teacher attitudes, and lack of knowledge of inclusion. Findings from Van Reusen, Shoho and Barker (2001) revealed that inadequate training and skills required to teach students with special needs are important in the implementation of inclusive education programmes.

Recent study on awareness of basic school head teacher of the inclusive policy, revealed that majority of them were uninformed and lacked the expertise on how to cater for the needs of children with disabilities in their schools (Danso, 2009). It is argued that no matter how well articulated inclusive educational policy might be, how excellent the infrastructure might be, how well resourced a programme might be, teachers" perception is critical in ensuring the success of inclusive practices since teachers" acceptance of the policy of inclusion is likely to affect their commitment to deliver relevant and meaningful instruction to students with disabilities (Mastropieri & Scruggs, 2010).

Despite the continued movement toward inclusive practices however, recent studies (e.g., Dupoux, Hammond, Ingalls & Wolman, 2006; Loreman, Forlin & Sharma, 2007; Ross-Hill, 2009) have found that many teachers have less than positive attitudes towards students with disabilities and their inclusion in general education classrooms. Several studies have shown that primary and high school teachers share similar perceptions regarding inclusive education; some negative, and some positive as well (Korkmaz, 2011; Ross-Hill, 2009). Centre for Educational Researches and Consulting (2013) found a significant relationship between high school teachers" perceptions of inclusion and classroom setting. This study concluded that teachers with experience in teaching within inclusive classrooms held more favorable perceptions toward

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inclusive education than those teachers who did not teach in inclusive classrooms. Recent studies (Loreman et al., 2007; Ross-Hill, 2009) have shown that much has not changed over the past decade regarding basic school teachers" perceptions of inclusive education. For example, Korkmaz (2011) in a study investigated the perceptions of teachers on inclusive education and it was revealed that teachers expressed more positive attitudes toward mainstreaming than inclusion.

Sharma, Ee and Desai (2003), found out that training in special education appeared to lessen pre-service teacher"s concerns regarding inclusive education. Similarly, Subban and Sharma (2006) revealed that teachers who reported having undertaken training in special education were found to hold more positive perceptions about implementing inclusive education. Loreman et al. (2007) reported similar findings which showed that teachers" perceptions about inclusive education were negatively impacted by their training in special/inclusive education. In contrast, Ali, Mustapha and Jelas (2006) found that in general, teachers held positive attitudes towards inclusive education. According to the results of their study, the teachers agreed that inclusive education enhanced social interaction and inclusion among the students and thus minimizing negative stereotypes on special needs students.

Teachers" views about inclusion are likely to affect their acceptance and commitment to implementing it successfully (Rouse, 2008). Understanding teachers" perceptions about educating pupils with disabilities in an inclusive general education classroom may help in developing programmes that would help change teachers" attitudes in a positive way and in turn contribute to the success of inclusive education. It is against this background that this study sought to examine teachers" perception about inclusive

education in the three educational circuits in Tamale Metropolis in the northern region of Ghana.

1.2 Statement of the Problem

Ghana is one of the countries that has developed a national policy on inclusive education. The fundamental principle is to ensure access and equal educational opportunities for all children, regardless of their emotional, social, physical, intellectual or other conditions (Education Strategic Plan, 2018-2030). Although efforts are in progress in rolling out inclusive education on a wider scale to reach all learners with special needs, this national policy implementation targets set in the Education Strategic Plan (2015) was not realised due to lack of effective teacher training, distorted understandings of the inclusive policy; teachers` unwillingness to include students with disabilities, insufficient knowledge of inclusion; lack of professionalism, negative attitude and believes towards children with disabilities (Ametepee & Anastasiou, 2015; Alhassan, 2014; Agbenyega & Deku, 2011; Anthony, 2009). These researchers raised concerns regarding teachers" perception of inclusive education specially at districts where the policy is yet to be rolled out especially at the three Northern Regions. The implementation of the policy started in the 2015/2016 academic year and as such little research has been conducted in the northern region of Ghana to examine the perceived views of teachers regarding the exercise.

1.3 Purpose of the Study

The purpose of the study was to find teachers" perception about the implementation of inclusive education in three educational circuits in Tamale Metropolis in the northern region of Ghana.

1.4 Objectives of the Study

The study sought to:

1. Find out teachers" knowledge about the implementation of inclusive education in Tamale Metropolis in the northern region of Ghana.

2. Identify teachers" perceived challenges associated with the implementation of inclusive education in the Tamale Metropolis.

3. Find out measures that can be taken to improve on teachers" perception about the implementation of inclusive education in the Tamale Metropolis.

1.5 Research Questions

The study was guided by the following research questions:

1. What level of knowledge do teachers have about inclusive education in Tamale Metropolis in the northern region of Ghana?

2. What are the perceived challenges teachers in Tamale Metropolis basic schools have with the implementation of inclusive education?

3. What measures can be taken to improve on teachers" perception about implementation of inclusive education in the Tamale Metropolis?

1.6 Hypotheses

The following hypotheses were addressed:

H$_O$1: There is no significant difference in the knowledge about inclusive education between general teachers and special school teachers in Tamale Metropolis.

Ha1: There is significant difference in the knowledge about inclusive education between general teachers and special school teachers in Tamale Metropolis.

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H_O2: There is no significant difference between male teachers" perceived challenges and female teachers" perceived challenges in relation to the implementation of inclusive education in the selected circuits.

Ha2: There is a significant difference between male teachers" perceived challenges and female teachers" perceived challenges in relation to the implementation of inclusive education in the selected circuits.

1.7 Delimitation of the Study

The study was confined to teachers of three educational circuits in the Tamale Metropolis. The reason is that, it was not possible to cover all the schools in the Metropolis since it would have required financial, time and supervisory resources which would not permit the researcher to successfully complete the work within the specified time frame.

1.8 Limitations of the Study

One common limitations with questionnaires is that they cannot probe deeply into the respondents" opinions and feelings. Teacher responses were restricted to suggested choices. The study"s concentration on the views of public basic school teachers on the implementation of inclusive education which was a limitation in itself. The perceptions of other stakeholders such as circuit supervisors, headteachers, pupils and parents towards inclusive education policy implementation could not be investigated in this study due to limited time and scope.

1.9 Significance of the Study

The results of the study would help in revealing teachers" views about the adequacy of training teachers towards implementation of inclusive education. This would enable curriculum planners for universities and colleges of education to know whether or not the current curriculum used in the universities and colleges of education is appropriate for preparing teachers for inclusive education in Ghana. This will help curriculum planners and school management in planning the curriculum that is in tandem with specific needs of learners.

The results of the study would also reveal to the Tamale Metropolitan Assembly and its Directorate of Ghana Education Service of what has to be done to equip colleges of education in Ghana to make the teaching of special needs children better. The study would moreover assist policy decisions at the Tamale Metropolitan Directorate of Ghana Education Service regarding inclusive education policy of education. Findings will point out gaps in policy and practice concerning delivery of curriculum, resource mobilization, capacity building and support services in inclusive schools.

1.10 Operational Definition of Terms

Inclusion: It"s seen as a wider reform of the education system, that aim to create learning environments that are responsive to all learners" needs and conductive to successful educational outcomes, and ultimately to a more equitable society. It goes beyond the education system to the communities in which learners live to ensure that they are welcomed, nurtured and given the opportunity to thrive to their optimum capacities.

Disability: Refers to an individual with physical, mental or sensory impairments including a visual, hearing, or speech functional disabilities which gives rise to physical, cultural or social barriers that substantially limits one or more of the major life activities of that individual (Ghana Disability Act 715).

Perception: Perception is the way sensory information is organized, interpreted and consciously experienced. It is the way in which people regard, analyse, retrieve and react to any kind of information from the environment. Teachers perceptions can also be affected by their beliefs, knowledge, values, prejudices, opinions, expectations and life experiences.

1.11 Organisation of the Study

This study was organized into six chapters. Chapter One presents the background to the study, statement of the problem, purpose of the study, objectives of the study, research questions, hypotheses, significance of the study, limitations and delimitations of the study, organisation of the study and operational definition of terms. Chapter Two deals with literature review, that is, the review of relevant literature on topics related to subject under study. Chapter Three presents the methodology employed in the study. This details research design, researchers" methodological position, research setting, population, sample and sampling techniques, research instruments, issues of validity and reliability, pre-testing, data collection procedures, data analysis procedures, and ethical consideration. Chapter Four focuses on the report and analysis results of the study while chapter five captures the discussion of the findings. Chapter Six also presents a summary of findings, conclusion and recommendations based on the findings of the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents the literature reviewed for the study. The review covered theoretical and empirical evidences. This includes the following:

1. The theoretical framework

2. The concept of inclusive education

3. Inclusive education policy in Ghana

4. Teachers" knowledge about the implementation of inclusive education,

5. Teachers" perceived challenges about the implementation of inclusive education

6. Measures to improve teachers" perception about the implementation of inclusive education.

2.2 Theoretical Framework

The theoretical framework adopted for this study was the social model of disability. Social constructionists apply the social construction argument to every disability in order to equate these conditions with social ideas (Anastasiou & Kauffman, 2013). It is argued that, once social barriers to the reintegration of people with physical impairments are removed, the disability itself is eliminated.

The concept of disability portrayed in the social model is captured succinctly by key phrases such as "disability is wholly and exclusively social" (Oliver, 1996, p. 35). The claim that a disability is merely an idea, an arbitrary social creation (Oliver, 1996), rather than a condition with both objective and subjective elements, involves

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confusing a fact with its description, in particular disability with its descriptions, diagnoses, etiologies, and treatments (Harris, 2000).

The social model of disability views disability as a societal construct, rather than as a medical impairment. It is an alternative to the medical model, which looks at disability in a very narrow and clinical way. The social model frames disability as a collective issue – caused by the physical environment, inappropriate or inaccessible services and attitudes, and a lack of understanding - rather than one that derives from the health of an individual (Thomas, 2004).

By identifying social barriers which should be removed, the social model has been effective instrumentally in the liberation of people with disability (Anastasiou & Kauffman, 2013). Oliver (2004) argues that the social model is a "practical tool, not a theory, an idea or a concept" (p. 30). The social model demonstrates that the problems people with disabilities face are the result of social oppression and exclusion, not their individual deficits. This places the moral responsibility on society to remove the burdens that have been imposed, and to enable disabled people to participate (Shakespeare, 2010).

Anastasiou and Kauffman (2013), argued that disability is not a product of bodily pathology, but of specific social and economic structures. These structures are responsible for the exclusion of people with disability from their full participation in mainstream social activities. According to Oliver (1960), "it is not individual limitations, of whatever kind, which are the causes of the problem but society"s failure to provide appropriate services to adequately ensure that the needs of people with disability are fully taken into account in its social organization" (p. 32). People with disabilities can therefore be considered as an oppressed social group. The

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oppression is attributed to the capitalist mode of production or the structures of industrial capitalism and the demands for increased productivity, whereby people are marginalized (Anthony, 2011). The social model philosophy is shared among many social activists in identifying the various forms of discrimination that people with disability face in our communities (Shakespeare, & Watson, 2001). In the subsequent decade, services, buildings and public transport have been required to be accessible to people, and most statutory and voluntary organisations have adopted the social model approach.

2.3 The Concept of Inclusive Education

Generally, inclusion has meant different things to different people, and the way inclusion is conceptualized and practiced has differed in different national educational contexts because of local social, cultural, and historical differences (Armstrong, Armstrong, & Spandagou, 2010; Lindsay, 2007). Other difficulties involving the conceptualization of inclusion have arisen from semantic, ideological and political discourses (Barton, 1997). A recent critical analysis of studies on inclusive education by Goransson and Nilholm (2014) found four different ways in which inclusion is understood: i) placement definitions that describe inclusion as the placement of pupils with disabilities or pupils in need of special support in regular classrooms; ii) specified individualized definitions that explain inclusion as meeting the social and academic needs of pupils with disabilities or those of pupils in need of special support; iii) general individualized definitions that view inclusion as meeting the academic and social needs of all pupils; and iv) community-based definitions that describe inclusion as the creation of communities with specific characteristics.

Some of these definitions of inclusive education have been described as narrow (in reference to promoting the inclusion of specific groups of students in regular education) and broad (when inclusion does not focus on specific groups of students but rather on how schools should respond to the diversity of all students (Ainscow, Booth & Dyson, 2006). In spite of these conceptual complexities, Nketsia (2016) in the Salamanca Statement that brought the concept onto the international scene originally defined inclusive education as regular education with child-centred pedagogy capable of meeting the special needs of all pupils. The Statement promoted a wider, principled and idealistic perspective of inclusive education (Evans & Lunt, 2002). The underlying presumption is that all children should be educated in regular education classes wherever possible, regardless of their physical, intellectual, social, emotional, linguistic, or other conditions, including being from the street, being working children, being remote, nomadic, from ethnic or cultural minorities, having other disadvantages, or having special needs that arise from disabilities or learning difficulties.

Kiuppis (2014) posited that the meaning of the words "inclusive education" and "inclusion" since Salamanca has changed within the time frame 1994–2000, and UNESCO"s focus on disability has been weakened considerably. Inclusive education is often framed within the Education for All (EFA) movement, stimulated by the 1990 Jomtien Declaration. It is a key approach that is fundamental to achieving the vision and purpose of EFA, which means that all children access to basic, quality education, requires that the school environment are inclusive of all children"s, effective with children, friendly and welcoming to children, protective of children, and gender sensitive (UNESCO, 2009; UNICEF, 2012).

The ultimate aim of special education is to increase access to quality education for children with disabilities by creating an environment that is conducive and responsive to their unique needs. This is based on the assumption that general education cannot accommodate children with disabilities because they have unique needs, which are not considered in general education (UNESCO, 2011). In principle, inclusive education assures all students the needed support systems – teaching aids and other teaching support systems, such as flexible curriculum, adequately prepared teachers, and a welcoming school culture that accepts and tolerates all (Peters, 2004).

In contemporary times, the focus of inclusion has now gone beyond the inclusion of students with disabilities into regular education to a broader focus on access, quality, equity, social justice, democratic values, participation, achievement, balance between community, and diversity (Ainscow, Booth, & Dyson, 2006; Salend, 2010). This is therefore a step in the right direction in developing the potentialities of persons with disabilities. However, there has not been a substantive definition for inclusive education (Pearson, 2005) nor is there any consistent government definition of inclusion making the practice of inclusion difficult (Deku & Ackah, 2012). To overcome the difficulty of substantive definition, Botts and Owusu (2013) proposed principal features to ease understanding. Botts and Owusu noted that, the process of inclusion is about never-ending search to find better ways of responding to diversity and learning how to live with difference, it concerns identification and removal of barriers, also involves a particular emphasis on those groups of learners who may be at risk of marginalisation, exclusion or underachievement, and lastly inclusion is about the presence, participation and achievement of all students. This suggests that inclusion is about valuing diversity and individual differences, and assuring equality and access. Although there are variations in the way different people describe

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inclusive education, there are also common elements that tend to feature strongly in the conceptualisation of inclusion. Some of these elements are cited by Green (2001) and they include "a commitment to building a more just society, a commitment to building a more equitable education system" (p. 4).

Consequently, schools designated as special should be adequately resourced with suitable support services and resources, and should employ customized instructional programmes that will address the needs of children with disabilities (UNESCO, 2011). In ensuring equality in our education system, it is very pertinent that all learners have access to education. However, it is equally important that they are able to take an active part in school and achieve desired outcomes from their educational experiences.

2.3.1 Inclusive Education Policy in Ghana

Ghana, along with other African countries was signatory to the Salamanca declaration and pledged to set in motion the mechanisms for creating an inclusive education system, which first began with experiments of integration in the 1970s. The Salamanca Statement and framework for action on Special Needs Education adopted the term Inclusive Education (UNDP, 2013). The focus was on diversity of children"s characteristics and educational needs. The Salamanca conference made sure positive steps were taken by governments committed to Education for All (EFA) in that they did not forget children or deliberately give them low priority. The inclusive education philosophy is built on the belief that all people are equal and should be respected and valued, as an issue of basic human right (UNESCO, 1994). UNESCO further notes internationally many educational authorities are embracing a philosophy of inclusion in order to address their social and moral obligations to educate all children. The UN

Convention on the Right of the Child (1989) emphasized education should be free and compulsory at least in the fundamental stages. It states in part "All rights are indivisible and interrelated" (p. 10). Segregated special education denies the children the right to remain within their family and community. In the Dakar Goals (2000), governments and other agencies pledged themselves to create safe, healthy, inclusive and equitably resourced educational environment, conducive to excellence in learning with clearly destined levels of achievement for all (Nketsia & Saloviita, 2013).

Although the influence of international organizations and policies was not obvious in Ghana"s special education before the Salamanca Statement of 1994 (UNESCO, 1994), the same cannot be said about the country"s special education policies after the Salamanca call to give priority to inclusive education. Arguably, the country"s current special education policies are influenced by the big inter-governmental organizations. Recently, Ghana ratified the United Nations Convention on the Rights of Persons with Disabilities (CRPD) in 2012 (Ametepee & Anastasiou, 2015). The Article 24, which focuses on education, prioritizes „individualized support measures – provided in environments that maximize academic and social development, consistent with the goal of full inclusion (emphasis added)‴ (CRPD, 2006, p. 4).

The inclusive education policy is anchored in the 1992 constitution of the Republic of Ghana, the Ghana shared Growth and Development Agenda and the Education Strategic Plan (2010-2020), the Disability Act and the Education Act and in the international agreements that Ghana is a signatory to such as Education for All, and in the 2020 plan among other documents (Anthony & Kwadade, 2006). It is based on the belief that all children can learn and have a right to an education. The policy makers are determined to bring forth a policy that will make a difference where it counts, in

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the lives of children, communities and in Ghana‟s education system. Hence the policy is accompanied by an implementation plan that sets out who will do what and by when as well as year by year targets and indicators to measure progress. In order to continuously respond to changing needs, the policy will be reviewed every five years.

This followed the establishment of community-based rehabilitation (CBR) programmes for people with disabilities in 1992, upon the recommendation of the UNESCO Consultation on Special Education. As part of the CBR agenda, inclusive education was piloted in 10 districts. The Ministry of Education‟s Strategic Plan (2003 – 2015) envisions the achievement of an inclusive education system by 2015. As a result, both government and NGOs have supported inclusive education and special needs education programmes, in the last decade (Ministry of Education, 2015).

2.4 Teachers' Knowledge of Inclusive Education

Teachers are recognized as persons who play a significant role in the process of delivering inclusive education. It is further asserted that this process of providing education to „all‟ children can become challenging and difficult to succeed, even with the most accurate plan, if teachers are unable to perform their duties with genuinely good intention and sincere commitment towards students with disabilities, especially those with severe or complex conditions (UNESCO, 2000). This is because teachers, in general, are expected to be able to comprehend diversities of various learning styles as well as different intellectual and physical development of their students in order to generate the learning environment.

Several studies have shown that primary and high school teachers share similar perceptions regarding inclusive education; some negative, and some positive as well (Dupoux, Wolman, & Estrada, 2005; Barco, 2007; Ross-Hill, 2009). Wiggins (2012) found a significant relationship between high school teachers" perceptions of inclusion and classroom setting. This researcher concluded that teachers with experience in teaching within inclusive classrooms held more favourable perceptions toward inclusive education than those teachers who did not teach in inclusive classrooms.

Mprah, Dwomoh, Opoku, Owusu and Ampratwum (2016) conducted a study to ascertain the level of knowledge and preparedness of teachers in five schools piloting inclusive education in the Ejisu Juaben Municipality in the Ashanti Region of Ghana. The study utilized qualitative data collection method, and employed a purposive sampling technique to select 40 participants for the study. The findings of the study indicated that teachers in the schools chosen for the inclusive education programme had inadequate knowledge of the programme before it was introduced. Responses from interviews revealed that all the classroom teachers did not have any idea on inclusive education prior to the introduction of the policy in the Municipality. Their lack of knowledge on the policy is attributed to the fact that although inclusive education was not part of their pre-services training, they were not given any in-service training on inclusive education.

Consistent with this finding, a comparative and cross-national study conducted by Cavusculu (2006) of the Hoges School, Zuyd, the Netherlands, focused on primary classroom teachers in Maastricht (the Netherlands) in general education and their counterparts in Ankara (Turkey). Questionnaires were administered to 80 teachers in

total: 40 teachers belonged to schools in Ankara and 40 teachers to schools in Maastricht. Thus, the total sample was 80 teachers out of about 400 teachers who were engaged in teaching assignments involving students with disabilities in mainstream classrooms. The purpose of Cavusculu"s study was to investigate: (1) the current knowledge and views of primary school teachers about teaching students with special educational needs in mainstream schools; (2) to determine the possible challenges of teachers with this education system; and (3) to see whether or not there are resources to support teachers in inclusive settings while performing their assignments. Cavusculu found that teachers in neither country took courses about inclusive education during their attendance at the university and at the time they engaged in educational activities in the schools. However, teachers in the Netherlands sometimes received assistance in inclusive education, in the classroom and outside of it, from the auxiliary professional members. To an extent, this closed the knowledge gap about inclusive education and support. Teachers in Turkey reported trying to provide an inclusive education while lacking knowledge about it and not having any support.

From the study it was concluded that the inclusive educational services in Turkey are facing many problems at the time of implementation. Teacher knowledge about inclusive education is insufficient and the supportive services are lacking. Therefore, this education is not successfully provided in Turkey. However, with the necessary supportive services for inclusive education and the supports that reduce the work load of the teachers, implementation of inclusive education by a majority of teachers in the Netherlands is noted to be progressing (Cavusculu, 2006). Persons having high level of knowledge relating to inclusive education are provided for the schools and there are fewer problems reported. The inference from the study is that inclusive schools

will suffer setbacks if support services for the development of the teacher and the inclusive child are absent.

Moreover, Mapsea (2006) of the University of Waikato investigated primary school teachers" views and experiences in implementing the inclusive education policy in regular schools. The study was conducted in five districts of the Enga Province of Papua New Guinea. Six primary schools were selected and involved 77 teachers who responded to questionnaire items, while twelve teachers within the group were chosen to be involved in interviews. Data for the study were gathered and analysed from the questionnaires and the interview transcripts. The findings from the study revealed that most teachers supported the notion of inclusive education policy and would like to implement it. However, most teachers felt that there is the need to be aware of the principle and the importance of inclusion. Teachers" limited knowledge of teaching children with special needs was also highlighted. According to Mapsea teachers admitted that they needed more training in the field of educating children with special education in order to accommodate and teach children with special needs. Furthermore, teachers" colleges and universities need to have more trained lecturers to develop more courses in special education. Teachers expressed the concern that school inspectors do not know enough about the inclusive education concept and need to be trained as well, so that collaboratively they could implement the policy. Government support is also mentioned as needed to implement effectively the inclusive education policy. This includes training of specialists to support teachers, funds for teaching and learning resources and facilities in schools.

Nketsia and Saloviita (2013) studied 200 final-year pre-service teachers from three colleges of education in Ghana on their views and knowledge on inclusive education and special educational needs (SEN). The results showed that almost all of the participants had been introduced to the concept of inclusion during their studies. However, only one-third felt highly, or somewhat, prepared to teach children with SEN. The level of knowledge and feelings of self-efficacy were highest among those pre-service teachers who had personal experience of supporting children with SEN during their practicum. The participants tended to prefer those inclusive instructional strategies that were easiest to apply in general education classrooms. Significant differences in the outcomes were found between the three colleges studied indicating strong effects of the teacher education model applied in each college. The participants were asked if they had been introduced to inclusive education during their studies. Of the respondents, 90% answered yes and 10% no. These results indicated generally good knowledge on inclusive education with the exception of a small minority. On the knowledge of inclusive education (KIE) scale the students familiar with the concept (n = 148) achieved higher scores (M= 42.3, SD = 6.6) than those (n = 17) who reported not being familiar with the concept (M= 33.0, SD = 9.1), t(16,7) = 4.0, p=.001. This confirmed the convergent validity of the scale. In the latter group, the mean corresponded the response „undecided" indicating a total lack of knowledge.

Similarly, Boakye-Akomeah (2015) conducted a study on the views of teachers of selected basic schools on inclusive education in Cape Coast Metropolis. The study adopted descriptive survey design to help find answers to the problem under investigation and a questionnaire was used to collect data for the study. Systematic random sampling technique was used to select 76 basic school teachers as the respondents for the study. The study revealed that almost all the respondents have

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knowledge and skills necessary to handle pupils with disabilities in inclusive settings. They were perceived to have the required knowledge and skills in handling pupils with disabilities in the Cape Coast Metropolis. The finding also revealed that teachers implement the curriculum by adopting strategies to suit learners and were using alternative assessment strategies in assessing pupils in the classroom. This also points to the fact that teachers at the basic level were prepared to collaborate with other professionals to enhance inclusive education in the Metropolis.

Newton, Carbridge and Hunter-Johnson (2014) also conducted a study which focused on teachers" perception of adapting inclusive education policies and procedures in the Bahamas and its implication for adult education. The research methodology used in this study was a qualitative phenomenological design which was reflective of semi structured interviews with participants using preset questions outlined by the researchers. Data was collected through the use of semi-structured interviews conducted with 18 public school teachers (ten elementary and eight secondary) throughout the New Providence District in the Bahamas. The results from the study revealed conflicting perceptions towards inclusive education at a primary and secondary level. At the primary level, the participants were very candid with their responses. However, while most of the teachers (60%) demonstrated negative attitudes towards the implementation of inclusive education within primary schools, some of the teachers (30%) displayed mixed feelings about the practice, and one teacher (10%) firmly support the practice of inclusive education. In general, the teachers viewed the idea of inclusive education as an extremely difficult feat due to the myriad deficiencies within the public education system, which, in their opinion, would impact the success of inclusive education. Teachers reported that at this present time, "*it is not feasible for the government of The Bahamas to venture into such an*

undertaking because there are too many concerns in dire need of immediate resolution" (Hunter-Johnson, Newton & Cambridge, 2014, p. 8).

2.5 Perceived Challenges Associated with the Implementation of Inclusive Education

Mprah et al. (2016) in their study to ascertain the level of knowledge and preparedness of 40 teachers in five schools piloting inclusive education in the Ejisu Juaben Municipality in the Ashanti Region of Ghana, found out that teachers in the schools chosen for the inclusive education programme had no adequate knowledge of the programme before it was introduced. Besides this major finding, the study also revealed other setbacks to inclusion such as inadequate preparation on the part of the teachers and negative attitude of teachers towards children with special needs. It is recommended, among others, that teachers in the mainstream schools are provided with intensive training on teaching special needs children in an inclusive setting to enable them to handle all categories of children with disabilities in their classrooms effectively. Avoke (2004) and Agbenyega et al. (2005) have expressed concern about the adequacy of training given to teachers in the Colleges of Education in Ghana. Since special education is not a major component of their course content, teachers do not acquire adequate knowledge in special needs education during their pre-service training. These teachers would therefore require a lot of in-service training to enable them to handle children with special needs in their classrooms. Without in-service training, teachers encounter difficulty to effectively teach children with special needs in inclusive schools and this poses serious challenges to the implementation of inclusive education policy (Friends & Bursuck, 2011).

Also, the results of the study conducted by Nketsia and Saloviitan (2013) revealed some deficiencies of pre-service teacher training related to inclusive education. About one third of the pre-service teachers reported having children with SEN in their practicum classrooms without providing special support to them. This was particularly common in College A, and was associated with lower levels of reported preparedness among the students in this college. This buttresses previous findings that Ghanaian teacher preparation does not provide enough training in special/inclusive education to enable teachers to make instructional accommodations for students with disabilities (Kuyini & Mangope, 2011; Agbenyega & Deku, 2011). Teachers need to develop the knowledge and skills in handling and teaching these disabled children in mainstream schools. If teachers are not trained in managing all children in the classroom, it will be difficult for teachers to handle the teaching. It is argued that, teachers may not have good and positive attitude towards the disabled children if they do not get an education on teaching approaches and relevant pedagogy to include them and learn ways to handle them in the classroom (Kuyini, 2010). Hence, teachers need to be supported and trained to adopt different teaching techniques, strategies, styles and approaches to teach and support diverse students in the school and classroom.

Ocloo and Subbey (2008) also conducted a study to investigate the perception of basic school teachers towards inclusive education in the Hohoe District of Ghana. The research makes use of a descriptive survey design, which engaged both qualitative and quantitative research methodologies. A sample size of 100 respondents, comprising of 60 male teachers and 40 female teachers, was drawn from a population of 600 for the study. A purposive sampling technique is employed to find participants for the study. The outcome of the research reveals that even though the basic school

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teachers in the Hohoe District were exposed to the policy of inclusive education, they identify factors impeding the policy implementation comprising: inadequate facilities available for the teachers to implement the policy of inclusion and a lack of adequate training for teachers to be equipped with how to take care of students with disabilities in their classrooms. It is also found that the Ghana Education Service and other stakeholders of education had paid mere lip service to the provision of services to inclusive school environments. They lamented about large class size, which always posed insurmountable challenges to effective teaching. Other teachers drew attention to the fact that proper training was not provided for effective implementation of inclusive education in the district. The researchers suggested that the Ghana Education Service must provide regular in-service training to the teachers for them to be able to address the learning needs of the disabled. Additionally, suggestions are raised for Government and other stakeholders to provide equipment and other facilities for implementation of inclusive education in Ghana.

Deku and Vanderpuye (2017) in their study explored perspectives of 120 teachers regarding inclusive education from schools identified as inclusive in Ghana. The perception of teachers on the curriculum were found not supportive, that the curriculum for inclusive schools must be flexible enough to meet the needs of all students. From the findings, it was revealed that majority viewed the curriculum as not appropriate. Any curriculum designed for students with disabilities is required to include social skills and should be based on carefully and individually targeted behaviours (Wood, 2006). Again, it was revealed that a good number of teachers observed that the physical environment was not suitable for inclusive education.

In ensuring quality education, physical environment must be stimulating and attractive to allow for effective interactions of both teachers and students. This finding was consistent with the earlier observation made by Deku and Vanderpuye (2008). They observed that the physical environments are not contributing enough to enable classroom teachers to facilitate the education of children in general and the education of children with SEN, in particular. In Ghana, the general physical environments of many schools, especially those in the rural areas, leave much to be desired. The implication is that the promotion of good teaching and learning in such unattractive environments would be negated. Inclusive education is likely to succeed in welcoming and attractive environments. Researchers (e.g., Earthman, 2004; Keep, 2002; Lackney & Jacobs, 2002) have argued that the physical conditions of the environment including teaching spaces, seating, furnishings, spatial density, privacy, noise and acoustics, climate and thermal control, air quality and windowless classrooms impinge on students" attitude to school, engagement, achievement and general wellbeing.

Similarly, Opoku (2016) observed in his study that due to inadequate infrastructural development, almost all the schools in the regions were overcrowded, making it hard for the schools to admit more children; congestion was a major problem facing school administrators and teachers in the special schools. Kuyini (2010) also supports the idea of providing the necessary facilities for the implementation and practice of inclusive education to be effective. He argues that, it is necessary to provide more facilities for effective inclusion because, lack of these facilities and infrastructures lead teachers to develop a negative attitude towards children with special needs and teachers think these children need to be excluded. In Opoku"s study, some respondents complained about the inadequacy of funds as well as delays in releasing

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the funds to special schools by the central government. According to an official at Special Education Division (SPED) *"support of government to special schools has always not been enough. Out of the budget for Ghana Education Service (GES), Special Education Division (SPED) gets only 1% allocation"* making it difficult to allocate enough funds to the special schools. All the headmasters of the schools, complained about inadequacy of the funds as well as delays in releasing the funds to the schools. Since financial resources are essential to run the schools, inadequate funding would definitely affect the smooth administration of the schools. This however, suggests that the lack of funds is actually a serious problem confronting the successful implementation of inclusive education.

People need to have good motives and intentions about the practice of inclusive education in both the schools and in society. Slee (2011) claims that people should have a good mindset and positive attitude towards inclusive education. As people develop positive attitudes towards inclusive education, implementing and practicing inclusive education becomes easier. In order that, people need to know the importance of inclusive education, they need to be educated about it and the reasons why they need to develop good behaviour towards children with disabilities and send them to regular school to help them get quality education (Slee, 2011). Educating the public will therefore, help to embrace and motivate children with disabilities to be in the regular schools and the society. If the public does not develop a positive attitude towards disabled children, thus raising awareness, the implementation and practice of the plan becomes a challenge.

Mprah et al. (2016) study discussed participants" attitudes towards children with special needs in their respective inclusive schools. Responses indicated that classroom teachers were against the inclusion of special needs children in their respective classrooms. According to a resource teacher, some of the teachers had negative attitude towards special needs children and used derogatory names on them causing their mates to mock them. For example, one of the respondents recounted that "*Hmm, the truth is that whilst some of us are trying to prevent isolation, others are creating barriers by making negative utterances such as "apakyenyansanii"(a wise cripple)"anikoro" (a one-eyed person) which are seriously influencing the "normal" ones to disassociate themselves from their own mates who are disabled."* The study found that some teachers have negative attitude towards inclusive education and abused them verbally and this is consistent with previous studies. Hostile attitude of teachers towards inclusion of children with disabilities in general education has been cited by Agbenyega (2005). The author indicated that teachers often vent their frustration of inability to handle children with disabilities by verbally abusing them. Agbenyaga (2005) also identified the use of derogatory names on children with special needs by teachers.

Deku and Vanderpuye (2017) in their study explored perspectives of teachers regarding inclusive education in Ghana. Data was collected using questionnaires from 120 teachers in schools identified as inclusive in the study. From the findings, it was realised that 55% of the teachers perceived themselves as not competent in teaching all children in inclusive schools and again 59.2% also indicated that their preparation was not adequate. The results also showed the relationship between qualification, age, and teaching experience, and pre-service preparation as significant. In other words, significant relationships were found among these variables. This significant

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relationship showed that teachers perceived their training as not adequate for teaching in an inclusive school. It is worth to note that almost all the teachers in the present study had obtained Teachers Certificate "A" diplomas and degrees in Education. This means that they are qualified teachers; the pertinent issue is if these qualified teachers perceive themselves as inadequately prepared to teach in inclusive classrooms. This suggests that, it is high time universities and colleges of education that train teachers improve upon their curriculum. This finding affirms that of Burns and Ysseldyke (2009). They found that teachers felt that their training inadequately prepared them to teach diverse learners.

Avoke and Avoke (2004) noted that teacher preparation in Ghana especially in the universities were focused on methodologies and assessment practices that were not tailored to the needs of children with disabilities in inclusive schools. According to them, the methodologies at the initial training programmes continue to be directed towards the practice of regular schools and not inclusive schools. Caseley-Hayford (2002), Vanderpuye, Gyimah and Deku, (2009) also noted that the course content in the colleges of education in Ghana were not adequate to prepare teachers for the task of inclusive education.

Vanderpuye et al., (2009) study found that, in-service training programmes were almost non-existent and even when available, areas covered were inadequate, leaving teachers not fully equipped in teaching children with disabilities in inclusive classrooms. For this reason, teachers do not see themselves as adequately prepared for the implementation of inclusive education. Quality in-service and pre-service teacher training is critical for the successful implementation of inclusive education. To develop quality teachers to foster successful inclusive education, the content of

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teacher training programmes for inclusion must include locally proven workable approaches and practices (Forlin, 2013). And this requires that, teacher educators themselves must be properly equipped to handle the requirements of effective teacher training for inclusion (Forlin, 2013).

Nketsia and Saloviita (2013) elicited information from 200 final-year pre-service teachers from three colleges of education in Ghana on their views and knowledge about inclusive education and special educational needs (SEN). The results showed that almost all of the participants had been introduced to the concept of inclusion during their studies. However, it was revealed that 22% of participants felt highly prepared, 38% somewhat prepared, 25% not prepared and 15% were yet to think about it. In the case of association of self-efficacy with field experience in supporting the child with SEN. Among those respondents who had supported the child with SEN in their teaching practice (n = 94), a total of 83% felt themselves highly or somewhat prepared for this activity, in comparison to 43% among those (n = 53) who did not have this experience. Recently, Opoku (2016) investigated the state of special schools in Ashanti and Brong Ahafo regions of Ghana. The aim was to assess conditions in the schools, from the perspectives of special educators, to ascertain if the schools were preforming the functions for which they were established. An in-depth interview was conducted for 20 participants, made up of special education officials at the national head office, district special education coordinators, headmasters and teachers of special schools. Responses from some teachers and headmasters confirmed assertions by SPED officials that some of the teachers in the special schools lacked the skills to teach children with disabilities. For example, some of the teachers complained of the difficulties they faced teaching children with disabilities because they do not have the needed skills.

2.6 Measures to Improve Teachers' Perception of Inclusive Education

With the current nature of teacher preparation programmes and their reported limitations in equipping teachers for inclusion, factors associated with teachers' attitudes such as those identified in the present research (i.e., discomfort, fear, teaching experience, knowledge of policy and law and uncertainty) may be important considerations in programmes (Loreman, Forlin & Sharma, 2007). Schools and districts must determine how to provide the most effective training prior to placing paraeducators with students in general education classrooms and how to provide ongoing supervision and support to allow paraeducators to provide quality services. Providing release time for special educators to initially acquaint paraeducators with the student before they enter the classroom may represent one way to do this. Scott, Mcguire and Shaw (2003) suggested that the Universal Design for Instruction is an avenue by which adult instruction in postsecondary education may be facilitated; it requires that faculty anticipate student diversity in the classroom and intentionally incorporate inclusive teaching practices. The value of Universal Design as it applies to educational settings and instruction is under exploration in a number of areas (Bowe, 2000; Centre for Applied Special Technology, 1999; McGuire & Scott, 2002). Another approach for training general educators in inclusion, which may help to address the disjointedness of general and special education, calls for infusing special education content and curriculum into general education courses (Aksamit, 1990; Hinders, 1995; Strawderman & Lindsey, 1995).

The findings from the study conducted by Opoku (2016) also suggest that the special schools were not effectively performing one of their core objectives of providing training for the children. It is expected that if the children are unable to perform well academically, they should be able to acquire vocational skills to make them

employable after school. However, the findings suggest that the children do not acquire skills needed on the labour market. Lack of resources and low expectation of the capabilities of the children by teachers are the major factors.

This finding corroborates findings by Gadagbui (2008), Oliff (2004) and Porters (2001), who observed that special schools are yet to be beneficial to children with disabilities as the children are not given the necessary training to make them productive after completion. Similarly, Hayford (2013) and Kiyuba and Tuku (2014) mentioned that special schools do not have good programmes for children with disabilities, so the children are kept in the schools as long as the parents want.

In relation to inclusive practice, student achievement can be compromised unless teacher-training programmes to embrace a new wave of pedagogical practice that value all learners (Carrington, Deppeler & Moss, 2010). Learning to teach in an inclusive setting is a highly complex and dynamic activity, and much to do with context that uses a whole school approach. A whole school approach to inclusive education involves using multiple strategies that have a unifying purpose and reflect a common set of values. It requires that policymakers, teacher educators, teachers, parents, students, and the community working together to create education environment that promotes equal opportunity for learning and well-being on social and emotional levels (Avramidis, 2005; Ekins & Grimes, 2009; Fullan, 2007; Peterson, 2004). While we cannot claim a definitive form of inclusive pedagogy, an attempt can be made to stir up a rich and diverse knowledge base that informs the preparation of teachers for inclusive education.

Professional development is important in the creation of successful inclusive environments. Many teachers are apprehensive about teaching special education students because they feel that they lacked training necessary to meet student needs, and that they had not learned appropriate skills in their career or at professional development workshops (Desimone & Parmar, 2006b; Lohrmann & Bambara, 2006).

In Idol‟s (2006) study, teachers wanted professional development in the areas of instructional and curriculum modifications, methods of supporting teachers in inclusive classrooms, professional development for instructional assistants, visiting schools practicing inclusion, disciplinary practices, and using reading tutor programmes. The roles of general and special education teachers have been redefined to meet the requirements of inclusion (Carpenter & Dyal, 2007).

Traditionally, special education teachers have been extensively trained to meet the needs of students with disabilities and provided instruction for content courses. Special education teachers are no longer qualified to teach core academic areas in which they have not proven competency due to the passage of the Individuals with Disabilities Education Improvement Act (IDEIA) of 2004 in the United States. Teachers who had training outside of school were more confident in meeting Individualized Education Program requirements more than teachers with school-based training or no training at all (Avramidis, Bayless & Burden, 2000).

According to Avramidis et al. (2000), professional development increased teachers‟ positive attitudes towards inclusion. When 81 primary and secondary teachers were questioned about inclusion, it was revealed that teachers with first- hand experience in inclusion were more positive than teachers who had little experience with inclusion. Teachers who had the proper training were confident in their ability felt they could

meet the needs of students with disabilities. Teachers are overwhelmed when they are faced with challenges, they do not feel they are equipped to handle. Monahan and Marino (1996) stated that, many general education teachers do not have the instructional skills or background to teach special education students.

According to Hay (2003), educators" knowledge, skills and competencies have direct impact on their preparedness to implement inclusive education effectively. Studies on teacher formation have identified teaching as a complex process of socialization (Carrington, Deppeler, & Moss, 2010; Murrell, 2001; Proweller & Mitchener, 2004; Wenger, 1998). With this complexity is the tension between philosophy of teaching underpinned by the teacher"s values, beliefs, behaviours, which influences what is taught, the policy and curriculum, and the structural constraints of school ethos (Goodson, 1992; Helms, 1998). Teacher training, development and change is shaped by the interrelationship between personal and experience, and professional knowledge linked to the teaching environment, students, curriculum and culture of the school. They have sometimes overwhelming task of translating framework, policies and directives into practice while safeguarding the best interests of the child (Hargreaves, 1994). The initial and continuous training and support of teachers are key strategies for the realization of an inclusive and right-based education system. Teachers are both duty bearers and rights holders within the framework for the right to education, and their empowerment to be able to assist the process of promotion and protection of the right to quality education for all is therefore very important. According to Hargreaves (1994) an inclusive education system is not only child-friendly in its nature but must also be teacher friendly.

Even if education is accessible, it doesn"t mean that the education is relevant or acceptable to help children to attain the required quality. Based on the principles of equality and participation, all learning materials need to be accessible to all learners and the content made relevant to their situation. Education materials must be free of barriers to learning for all children. This means that materials must be adapted to the individual needs of each learner. Some learners might need material in Braille while others need mother-tongue materials in order for them to be able to participate. In order to avoid exclusion from learning within the education system and remove discriminatory barriers, applying a rights-based approach to material development and design is fundamental in the process of creating an inclusive education system (Hargreaves, 1994). Above all, the realization of an inclusive education system requires a paradigm shift towards more learner-centred and inclusive methodologies and pedagogies based on human rights principles of non-discrimination, equality and the best interests of the child. Teachers as the key change agents in the process towards inclusion and non-discrimination must be empowered to be able to actively remove barriers to and within learning.

A rights-based school, which reflects and helps children realize their rights, is essentially a child-friendly school - one which is not only academically effective but also inclusive of all children, healthy and protective of children, gender-responsive, and encouraging of the participation of the learners themselves, their families, and their communities (Lortie, 1975). This requires, of course, solid support from the teachers and principals, but also the communities which surround the school. All must be able and willing to ensure the inclusion in the classroom and in learning not only their own children; not only the average child but also other children with very

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diverse characteristics arising from sex and social economic status and ability/disability, language and ethnicity.

Building more facilities encourages more children to be in schools because a lack of facilities becomes the barrier for many children who find themselves out of the school system (Obeng-Asamoah, 2016). This lack of facilities has led many children to drop out of schools when there are not enough facilities to accommodate them (Gadagbui, 2010). As more facilities are provided, it encourages more children to stay in schools and this also encourages teachers to develop a positive attitude towards children with disabilities (Alhassan, 2014). Creating more facilities reduces the number of students in a classroom to help the teacher have time to focus more on each student. The result is that when teachers get more time for all the children, they also have time to encourage their students to help one another in the classroom.

2.7 Summary of Literature Review

The theoretical framework adopted for this study was the social model of disability. The social model of disability views disability as a societal construct, rather than as a medical impairment. Inclusive education is built on the belief that all people are equal and should be respected and valued, as an issue of basic human right (UNESCO, 1994).

Teachers are recognized as persons who play a significant role in the process of delivering inclusive education. Several studies (Dupoux, Wolman, & Estrada, 2005; Barco, 2007; Ross-Hill, 2009) have shown that primary and high school teachers share similar perceptions regarding inclusive education; some negative, and some positive, Wiggins (2012) found a significant relationship between high school

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teachers" perceptions of inclusion and classroom setting. Mprah, Dwomoh, Opoku, Owusu and Ampratwum (2016) researched to ascertain the level of knowledge and preparedness of teachers in five schools piloting inclusive education in the Ejisu Juaben Municipality in the Ashanti Region of Ghana. The findings of the study indicated that teachers in the schools chosen for the inclusive education programme had no adequate knowledge of the programme before it was introduced.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter presents the research methodology. It covered the research design, setting, population, sample size, sampling techniques, procedures for data collection and instrumentation. It also describes the data sources including the methods of data collection, addressing ethical concerns and data analytical procedures.

3.2 Researchers' Methodological Position

A researcher's choice of methodology is underpinned by his or her philosophical position regarding knowledge and how it can be accessed. These positions influence decisions regarding the research approach, choice of method and frame for analysis, and guide his or her research design at all stages (Kusi, 2012). Therefore, the approach that researchers adopt in a study is underpinned by the paradigm they subscribe to be based on a set of beliefs, assumptions, and the questions to address.

Research paradigm shows a whole system of thinking which includes the basic assumptions, the important questions to be answered and the research techniques to be used (Slavin, 2007). According to Bryman (2008), three distinct paradigms that guide research are Positivism, Interpretivism, and Pragmatism. The Positivist Paradigm was adopted for the study. Researchers of the positivist tradition argue that social reality is "out there", external and independent of the researcher, and therefore it can be accessed through natural scientific approaches in physics, chemistry and biology that are objective in nature (Cohen, Manion & Morrison, 2011). The positivist paradigm asserts that real events can be observed empirically and explained with logical

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analysis (Gill & Johnson, 2010). Gill and Johnson explain that, the criterion for evaluating the validity of a scientific theory is whether our knowledge claims (i.e., theory-based predictions) are consistent with the information we are able to obtain using our senses. This study sees teachers" perception about implementation of inclusive education as social reality that could be investigated through the scientific approach. Researchers who subscribe to the positivist tradition are seen as adopting quantitative approach of research.

Bryman and Bell (2011) posit that quantitative research methodology adopts mathematical and statistical methods to measure results. This implies that quantitative approach entails the use of measurement and testing and the use of numerical data to describe, explain and test relationships where computer programmes like the Statistical Package for the Social Sciences (SPSS) could aid the analysis of data. However, limitations of the quantitative methodology have been identified to include more cost where large sample size is needed so as to generalize the results to the population, and low return rate. Besides, the study needs to be conducted in a contrived context.

3.3 Research Design

A cross-sectional survey collects data to make inferences about a population of interest (universe) at one point in time (McMillan & Schumacher, 2010). The researcher adopted cross-sectional survey design because, it is usually relatively inexpensive and allow the researcher to collect a great deal of information quite quickly. Data is often obtained using self-report surveys and researchers are then able to amass large amounts of information from a large pool of participants. It also allowed the researcher to collect data on some different variables to see how

differences in sex, age, educational status, and income might correlate with the critical variable of interest (in this case perception).

3.4 Study Setting

The study was conducted in Tamale Metropolis in the Northern Region of Ghana. Tamale is the capital of the Northern Region and is one of the 26 districts in the Northern Region. It is located in the central part of the Region and shares boundaries with the Sagnarigu District to the west and north, Mion District to the east, East Gonja to the south and Central Gonja to the south-west. The Metropolis has a total estimated land size of 646.90180 sq km and population of 263, 082 with males constituting 49.7% of the population and females 50.2% (Ghana Statistical Service [GSS], 2012). Out of the total population in the Tamale Metropolis, only 2% has some form of disability. Further to this, there is an equal proportion (2.0%) of males and females living with disabilities in the Metropolis. These disabilities include sight, hearing, speech, physical, emotional and intellectual. Regarding school attendance, females with disabilities are lagging behind their male counterparts, as 56.4% of females have never attended school as against 41.7% of males who have never been to school (Ghana Statistical Service [GSS], 2012). There is no regular school in the Tamale Metropolis practising inclusive education.

3.5 Access to Site

The researcher sought permission from the Tamale Metropolis Education Directorate to undertake the study in the selected schools. Permission (verbal) was also sought from the head teachers of the selected schools to involve them and their staff in the study. The verbal permission secured by the researcher was backed with written introductory letter from the Department of Special Education, UEW to the

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Metropolitan Directorate of Ghana Education Service is attached to the study as one of the appendices.

3.6 Population of the Study

Tamale Metropolis has fifteen (15) educational circuits for the public primary schools with approximately 489 trained school teachers. The target population for this research was all public primary schools within the three selected educational, namely, the Gumbihini, Salaga road and Hospital educational circuits. The teachers should be graduates from teacher training institutions. The three participating circuits were selected using purposive sampling method. The study population was made up of 81 teachers of Gumbihini Educational Circuit, 100 of the Hospital Educational Circuit and 72 teachers of Salaga road Educational Circuit. The study population was from a pool of two hundred and fifty-three (253) teachers. The details are presented in the Table 3.1 shown below:

Table 3.1: Population distribution of the three selected circuits in Tamale Metropolis

Educational Circuit	Male	Female	Total
Gumbihini	21	60	81
Hospital	46	54	100
Salaga road	44	28	72
Total	**111**	**142**	**253**

Source: Metropolis Education Directorate (2017).

3.7 Sample Size

The sample size employed in this study was 253 teachers

3.8 Sampling Procedure

The educational circuits included in the study were; Gumbihini, Salaga road and Hospital educational circuits. All the teachers of the selected three educational circuits participated in the study. The total number of 253 respondents were therefore targeted by the study. The teachers who participated in the study were included through the census method. This attempt was made to engage all the staff members in the study considering that the total universe or population relative to the staff was not vast – thus, two hundred and fifty-three (253) teachers. This method provided the researcher the opportunity to collect a lot of data about the subject studied for detailed analysis required.

3.9 Research Instrument

The research instrument titled "Questionnaire for teachers" was used to gather data for the study. The questions were adopted from the study conducted by GES in collaboration with UNICEF Ghana Office with a few additions to suit the study area (Appendix II). They consisted of closed structured questions. This is in line with the view held by Cohen et al. (2011). They believe that highly closed structured questions have the advantage of generating frequencies of responses amenable to statistical treatment and analysis. They go further to argue that such questions enable comparisons to be made across groups in the sample. The first part of the research instrument was demographic data which sought information on variables such as type of school, circuit, age, gender, qualification and experience of teachers. Part two of the instrument describes teachers" knowledge, perceived challenges and measures to

improve teachers" perception about inclusive education. There are four questions on this part constructed along a 5-point Likert type scale.

3.10 Pilot Test of Instrument

Prior to the implementation of data collection instrument, a pilot study was conducted. The pilot test was conducted in one of the remaining 12 circuits within the Tamale Metropolis and the results was used to test the reliability of the research instrument. The pilot test was conducted to check the validity and reliability of the test instrument. Pilot test assisted the researcher to identify and discard all unnecessary, difficult or ambiguous questions, and provided the opportunity for the researcher to re-word or re-scale any question that would be answered wrongly (Kerlinger, 2004). Again, the pilot test helped the researcher to record the time that was taken to complete the questionnaire by each of the respondents on the field survey and decided whether that time allocation would be appropriate.

3.11 Validity of the Instruments

Validity of instruments refers to the extent to which the research instruments measure what they are intended to measure (Cohen, Manion & Morrison, 2011). To investigate the validity, the researcher prepared the instrument in close consultation with the supervisor who evaluated the relevant items in the instrument to the objectives. The supervisor gave expert judgment which helped in proving the validity of the instruments and this gave rationale for the choice of this technique.

3.12 Reliability of Instruments

Reliability of the instruments refers to the consistency of the instrument to give similar results whenever it is administered (Oso & Onen, 2008). The instruments were pilot tested in a school not included in the study sample. Fifteen (15) teachers were selected using simple random sampling from the pilot schools to participate in the pilot study. Piloting ensures that the research instruments are clearly tested and modified to improve their reliability.

The questionnaires were administered by the researcher because by doing so, she ensured that the respondents were assured of confidentiality for them to give relevant information. The test-retest reliability was used where the questionnaires were administered to the pilot group and after two weeks the instrument was administered to the same individuals. A correlation coefficient calculated using parson product moment correlation coefficient to determine how closely the participants" responses on the second occasion matched their responses on the first occasion.

3.13 Procedure for Data Collection

The questionnaires administration spanned four weeks and were delivered to the respective schools personally by the researcher for the teachers to respond to them. This was after permission has been sought and granted by the metropolitan directorate of education with a letter of introduction from the Department of Special Education at the University of Education. Upon reaching the schools, the researcher went to the headteachers to introduce herself and sought permission from the headteacher before administering the questionnaire. The distribution and collection of the questionnaire was done by visiting the respondents in the schools they teach. I visited the schools

which were involved in the study to administer the instrument to the various respondents concerned.

The instruments were administered to all the sampled schools in one day and they were retrieved from the respondents two days later. In order to ensure that the instruments were well completed, enough time was given to the teachers so that they could have time to complete them well. The return rate for the instrument was 92% since 10 of the instruments could not be retrieved from the teachers. Effort was made to retrieve them but it proved futile; hence, the 92 questionnaires were screened for data analysis.

3.14 Data Analysis

Data analysis entails the separation of data into constituent parts or elements and examination of the data to distinguish its components parts or elements separately and in relation to the whole. Once data was collected from the respondents, it went through data reduction by categorizing manually according to questionnaire items and using frequency distribution tables and percentages. Data was collected in form of strongly disagree, disagree, not sure, agree, strongly agree from the questionnaires administered by the researcher. These scales for the research questions were collapsed during the data preparation for analysis. In the analysis, the researcher trichotomized the original 5-point scale of the questionnaire responses on knowledge, perceived challenges and measures to enhance teachers" perception (1=strongly disagree, 2=disagree, 3=Not Sure 4=agree, 5=strongly agree) by collapsing responses for 1 and 2 into a disagree category, 3 as not sure category and 4 and 5 into an agree category, yielding a 3-point scale: 1=disagree, 2=not sure and 3=agree. The rationale behind this three-point scale was to enhance interpretation of the data.

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The researcher used descriptive statistics to determine the frequencies, percentages, mean and standard deviation scores for each response. Frequency tables were constructed and each response from the questionnaire item was tallied on a frequency table. The responses of all the respondents in each school were pooled together to get the overall tally of the responses according to the categories of the responses. The tally of the various responses was then converted into percentages by expressing each tally as a fraction of the total. These methods are appropriate for this study because they can easily be understood by many readers when results are presented in that manner. Quantitative data obtained from closed questions on the questionnaire were coded and analysed using descriptive statistics.

3.15 Ethical Considerations

The following important ethical considerations were ensured:

Voluntary participation on the part of those requested to be part of the data gathering process were sought after. Participants were informed that they could voluntarily leave the project whenever they chose to do so, without penalty. The researcher sought for the participants" informed consent. In this case, teacher participants were informed of what the research entailed and of how they could participate. This includes the municipal education director and school heads. Confidentiality and anonymity were assured in the contract drawn up between the researcher and the participants. For this study, the participants were allocated code names.

Feedback regarding the results and findings of the research was provided for study to the participants. For this study, as soon as the results were certified as valid by the committee of the University, the participating teachers were informed about the outcomes of the study.

CHAPTER FOUR

RESULTS AND FINDINGS

4.1 Introduction

This chapter presents the results and findings of the results of the study. The purpose of the study was therefore to examine teachers" perception of inclusive education in three educational circuits in Tamale Metropolis in Northern Region of Ghana to ascertain whether teachers are in favour of the implementation of the policy in the region. Some descriptive statistics (such as frequencies, percentages, mean and standard deviation) and inferential statistics such as independent t-test were employed to test the hypotheses formulated based on the research questions. The results presented in this chapter was based on the following research questions:

1. What level of knowledge do teachers have about inclusive education in the Tamale Metropolis in the Northern Region of Ghana?

2. What are the perceived challenges of teachers in Tamale Metropolis basic schools with the implementation of inclusive education?

3. What measures can be taken to enhance teachers" perception about inclusive education in the Tamale Metropolis?

Additionally, the study tested the following hypotheses:

1. **H_O1:** There is no significant difference in the knowledge about inclusive education between general education teachers and special education teachers in Tamale Metropolis.

   Ha1: There is significant difference in the knowledge about inclusive education between general education teachers and special education teachers in Tamale Metropolis.

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2. **H$_O$2:** There is no significant difference between male teachers‟ perceived challenges and female teachers‟ perceived challenges in relation to the implementation of inclusive education in the circuits.

Ha2: There is a significant difference between male teachers‟ perceived challenges and female teachers‟ perceived challenges in relation to the implementation of inclusive education in the circuits.

4.2 Quantitative Results from Questionnaire

Results to the research questions and hypotheses are presented in the study as follows. The scales for the research questions were collapsed during the data preparation using SPSS version 20.0. As stated in the previous chapter, in the analysis, the researcher scaled down the original 5-point scale of the questionnaire responses on knowledge, perceived challenges and measures to enhance teachers‟ perception (1=strongly disagree, 2=disagree, 3=Not Sure 4=agree, 5=strongly agree) by collapsing responses for 1 and 2 into a disagree category, 3 as not sure category and 4 and 5 into an agree category, yielding a 3-point scale: 1=disagree, 2=not sure and 3=agree.

4.3 Demographic Characteristics of Teacher Participants

The demographic characteristics of 243 participants (teachers) that were considered in the study include sex, age, type of teacher, years of teaching experience. Details of the participants" gender are depicted in Figure 4.1.
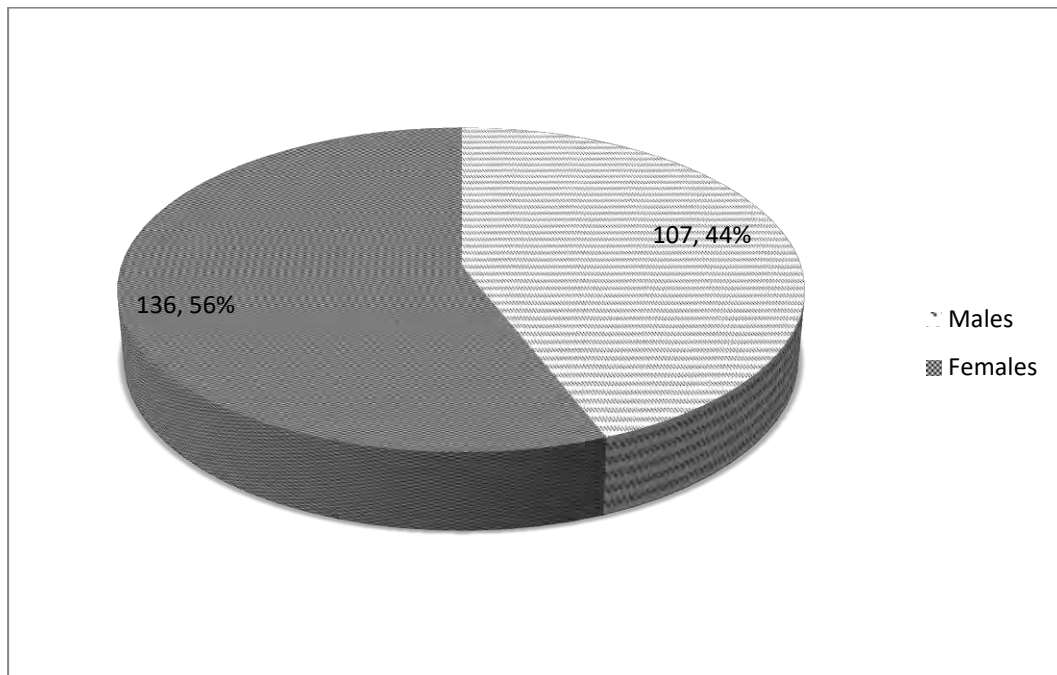
Figure 4.1: Sex distribution of respondents
Source: Field Data (2018)

Figure 4.1 presents sex distribution of the respondents. The figure shows that 136 (56%) of the respondents were females whereas 107 (44%) were males. The indication is that, there were more female respondents than males in the study.

Also, age distribution of teacher participants was explored and the details are illustrated as follows.
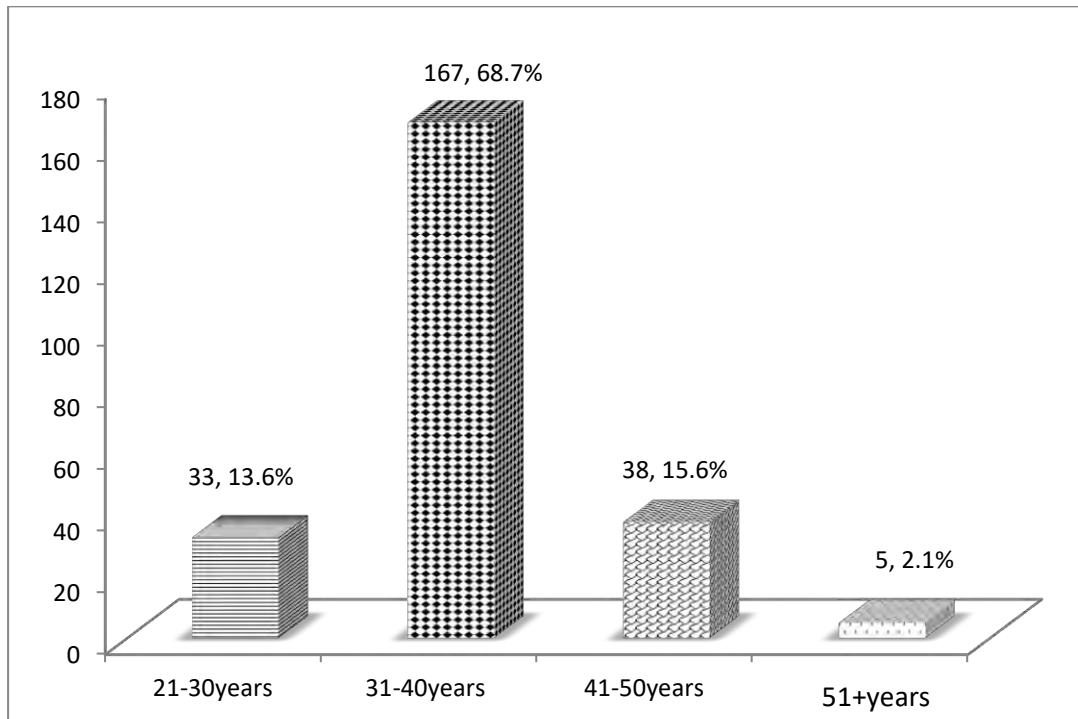
Figure 4.2: Age distribution of respondents
Source: Field Data (2018)

Figure 4.2 shows that the modal age group was 31-40years (n=167, 68.7%) with the least represented age group 5 (2.1%) be above 50years. Also, 38 (15.6%) of the respondents were between the ages of 41 and 50 years whereas 33 of them representing 13.6% of the total participants were between the ages of 21 and 30 years. The distribution means that participants in the study were adults.

Among the demographic characteristics of respondents, the study explored the type of teacher participants. Details are presented as follows:
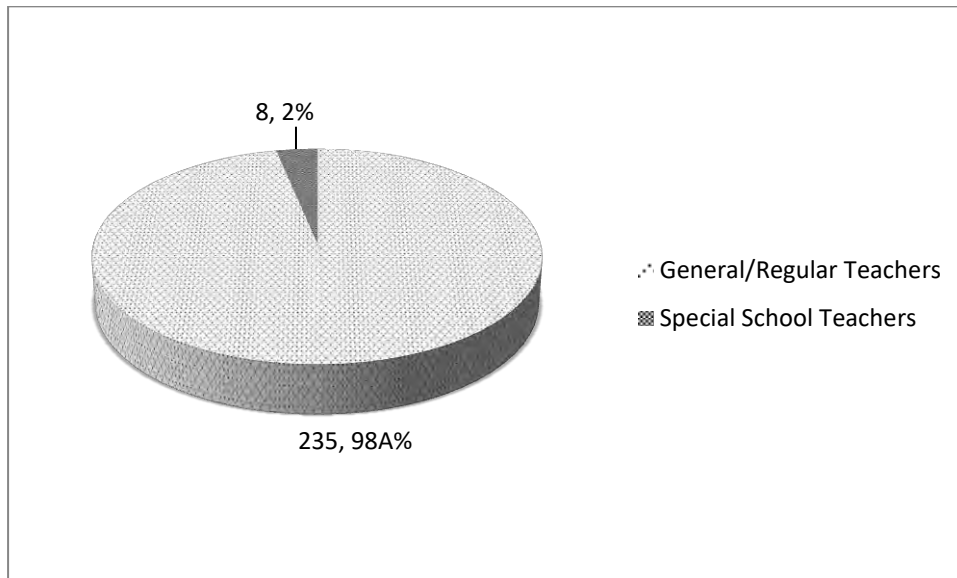
Figure 4.3: Type of teacher respondents
Source: Field Data (2018)

The results from analysis of data in Figure 4.3 show that out of 243 teacher participants selected across all the levels of basic schools in the selected circuits, 235 (98%) were general education teachers. It is also evident that 8 (2%) of teacher participants were special education teachers with no resource teacher. This shows that, there were more regular education teachers teaching at the JHS than special education teachers.

The demographic characteristics also captured participants" teaching experience in Table 4.1 below.

Table 4.1: Participants' years of teaching experience

Variable	Category	Frequency	Percentage
Teaching Experience	1-3years	29	11.9
	4-6 years	140	57.6
	7-9 years	38	15.6
	10+years	36	14.8
	Total	**243**	**100**

Source: Field Data (2018)

Furthermore, from Table 4.1 one hundred and forty (57.6%) of the teachers had taught for a period between 4-6 years, whereas 36 (14.8%) of them had taught for 10 years or more. Thirty-eight (15.6%) had taught for a period between 7-9 years while the remaining 29 (11.9%) taught for a period between 1-3 years. Thus, the general education teachers were more experienced than their special education counterparts.

4.4 Research Question 1: What level of knowledge do teachers have about inclusive education in the Tamale Metropolis in the Northern Region of Ghana?

This research question sought to determine the level of knowledge that teachers in the Tamale Metropolis in the Northern Region of Ghana have about inclusive education. In exploring the level of teachers" knowledge about inclusive education, the researcher used descriptive statistics to determine the frequencies, percentages, mean and standard deviation scores for each response from a 13-item questionnaire.

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Table 4.2 shows the results from the field.

Table 4.2: Teachers' Level of Knowledge about Inclusive Education (n = 243)

Items	Disagree f (%)	Not Sure f (%)	Agree f (%)	*M*	*SD*
1. Meeting the needs of learners with intellectual disabilities.	168 (69.1)	24 (9.9)	51 (21.0)	1.52	0.82
2. Assessing, testing or evaluating the learning of children with disabilities.	164 (67.5)	17 (7.0)	62 (25.5)	1.58	0.87
3. Using varied learning activities to engage a diverse range of learners.	17 (7.0)	18 (7.4)	208 (85.6)	2.79	0.56
4. Meeting the needs of learners with multiple disabilities.	56 (23.0)	138 (56.8)	49 (20.2)	1.79	0.66
5. Meeting the needs of learners with learning disabilities.	25 (10.3)	54 (22.2)	164 (67.5)	2.57	0.67
6. Meeting the needs of learners with autism.	41 (16.9)	9 (3.7)	193 (79.4)	2.63	0.76
7. Meeting the needs of learners who are blind or have low vision.	4 (1.6)	20 (8.2)	219 (90.1)	2.88	0.37
8. Meeting the needs of learners who are gifted (talented/creative).	15 (6.2)	5 (2.1)	223 (91.8)	2.86	0.50
9. Meeting the needs of learners seen as having behavioural difficulties.	211 (86.8)	10 (4.1)	22 (9.1)	1.22	0.60
10. Meeting the needs of learners who are deaf or hard of hearing.	199 (81.9)	22 (9.1)	22 (9.1)	1.27	0.62
11. Meeting the needs of learners with physical disabilities.	20 (8.2)	9 (3.7)	214 (88.1)	2.80	0.57
12. Meeting the needs of learners with deafblindness.	27 (11.1)	17 (7.0)	199 (81.9)	2.71	0.66
13. Meeting the needs of learners with speech, language, or communication disorder	31 (12.8)	29 (11.9)	183 (75.3)	2.63	0.70

Source: Field data (2018)   **Key: f**–Frequency, **%**– Percentage,
                    M–Mean, *SD*–Standard Deviation,

Table 4.2 presents data on teachers' knowledge about inclusive education. From Table 4.2, it could be indicated that the mean and standard deviation scores range from 1.22 to 2.88 and 0.37 to 0.87 respectively. It is evident in Table 4.2 that, 208 (85.6%) of the total teacher respondents agreed that they have knowledge in using varied learning activities to engage a diverse range of learners whereas 17 (7.0%) disagreed with a mean score of 2.79 and standard deviation of 0.56. The 18 (7.4%) teacher respondents remaining disclosed their indecision on the statement. This means that, majority of teachers have knowledge in using varied learning activities to engage a diverse range of learners. It is again evident that, 164 (67.5%) of the teacher participants reportedly have knowledge to meet the needs of learners with learning disabilities with mean of 2.57 and standard deviation of 0.67. However, 25 (10.3%) of them declined whereas 54 (22.2%) remained neutral to the same statement. This means that, most of the participants do have the knowledge to meet the needs of learners with learning disabilities.

Similarly, 15 (6.2%) of the participants were unsure of the statement „Meeting the needs of learners who are gifted (talented/ creative)" with mean of 2.86 and standard deviation of 0.50. Meanwhile, 223 (91.8%) of the participants forming the majority affirmed to the statement that they have knowledge in meeting the needs of learners who are gifted (talented/ creative). Five (2.1%) of the teacher participants underscored their uncertainty about the stated position. This is an indication that, most teachers do have knowledge in meeting the needs of learners who are gifted (talented/ creative). Also, 31 (12.8%) of the teacher participants declined to the statement „Meeting the needs of learners with speech, language, or communication disorder." with mean of 2.63 and standard deviation of 0.70. However, 183 (75.3%) of the teacher participants forming the majority affirmed that they have knowledge in meeting the needs of

learners with speech, language, or communication disorder. Twenty-nine (11.9%) of the teacher participants stated their uncertainty about the stated position. The indication was that, most teachers do have knowledge in meeting the needs of learners with speech, language, or communication disorder.

Table 4.2 reveals that, 22 (9.1%) of the teacher participants agreed to the statement „Meeting the needs of learners seen as having behavioural difficulties‟ with mean of 1.22 and standard deviation of 0.60. Meanwhile, 211 (86.8%) of the participants forming the majority disagreed to the statement that they have knowledge in meeting the needs of learners seen as having behavioural difficulties. Ten (4.1%) of the teacher participants stated their uncertainty about the stated position. This indicated that, most teachers do not have knowledge in meeting the needs of learners seen as having behavioural difficulties. It is evident that, 168 (69.1%) of the teacher participants disclosed that they do not have knowledge to meeting the needs of learners with intellectual disabilities with mean score of 1.52 and standard deviation of 0.82. However, 51 (21.0%) of them agreed whereas 24 (9.9%) remained neutral to the same statement. This means that, most of the teacher participants do not have knowledge to meet the needs of learners with intellectual disabilities.

Again, 164 (67.5%) of the teacher participants disagreed with the statement that they have knowledge in assessing, testing or evaluating the learning of children with disabilities with a mean score of 1.58 and a standard deviation score of 0.87. On the same item, 62 (25.5%) of the participants disagreed with 17 (7.0%) of them representing minority were not certain. The indication is that, most teachers do not have knowledge in assessing, testing or evaluating the learning of children with disabilities. Moreover, 168 (69.1%) of the teacher participants agreed that they have

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knowledge in meeting the needs of learners who are blind or have low vision with a mean score of 1.52 and a standard deviation score of 0.82. Fifty-one (21.0%) of the teacher participants disagreed with 18 (7.4%) of them representing minority were not certain. The indication is that, most of the teacher participants do not have knowledge in meeting the needs of learners who are blind or have low vision.

It is also evident that, 199 (81.9%) of the teacher participants disclosed that they do not have knowledge to meet the needs of learners who are deaf or hard of hearing with mean of 1.27 and standard deviation of 0.62. However, 22 (9.1%) of them agreed whereas 22 (9.1%) remained neutral to the same statement. This means that, most of the teacher participants do not have knowledge to meet the needs of learners who are deaf or hard of hearing.

4.4.1 Hypothesis 1: There is no significant difference in the knowledge about inclusive education between regular education teachers and special education teachers in Tamale Metropolis.

This hypothesis looked for a difference between two groups: regular education teachers" knowledge and special education teachers" knowledge about inclusive education. Table 4.2.1 illustrates variability between the regular education teachers" knowledge and special education teachers" knowledge in inclusive education in the questionnaire administered.

In analysing data using independent t-test, it is considered appropriate to highlight information on its mean and standard deviation. Table 4.2.1 provides useful descriptive statistics for the two groups (that is general and special education teachers).

Table 4.3: Group Statistics of Teachers' Scores in the Knowledge about Inclusive
Education   (n = 243)

	What type of teacher are you	N	Mean	Std. Deviation	Std. Error Mean
Teachers" Knowledge	Special education teacher	8	29.63	1.06	0.38
	Regular education teacher	235	29.41	1.91	0.12

Source: Field data (2018)

As depicted in Table 4.3, the examination of the group means indicates that special education teachers ($M = 29.63$, $SD = 1.06$) showed higher knowledge about inclusive education than did regular education teachers ($M = 29.41$, $SD = 1.91$).

An independent samples t-test was conducted to find out whether the observed difference in mean scores are significant or not in the knowledge about inclusive education between regular and special education teachers using an alpha level of 0.05. Table 4.5 (Appendix B) illustrates the variability of means between the two groups. The *t*-test for the independent samples results in Table 4.5 (Appendix B) revealed that there is not a significant difference in the scores obtained by regular education teachers ($M = 29.41$, $SD = 1.91$, $N = 235$) as compared to that of special school teachers ($M = 29.63$, $SD = 1.06$, $N = 8$) in knowledge, with $t(241) = 0.31$, $p = 0.75$. The mean difference in knowledge about inclusive education between regular education teachers and special education teachers was 0.21. Hence, the researcher retains the null hypothesis and concludes that there is no significant difference in the knowledge about inclusive education between regular education teachers and special education teachers in Tamale Metropolis. Also, the 95% confidence interval for the mean difference between the regular and special education teachers" knowledge was -

1.12 to 1.55. Moreover, the assumption of homogeneity of variances was tested and satisfied via Levene‟s test for equality of variances with $p > 0.05$ as can be seen in Table 4.5 (Appendix B).

4.5 Research Question 2: What are the perceived challenges of teachers in Tamale Metropolis basic schools with the implementation of inclusive education?

In addressing the issue of teachers‟ perceived challenges associated with the implementation of inclusive education, a questionnaire was designed to solicit views from teacher respondents. Table 4.3 illustrates the descriptive statistics (frequency, percentage, mean and standard deviation) of the responses to each question on the perceived challenges associated with the implementation of inclusive education. Table 4.3 details the results as follows:
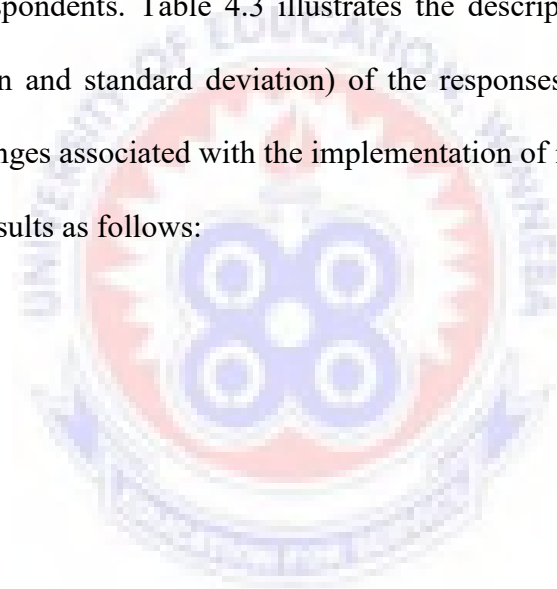
**Table 4.4: Teachers' Perceived Challenges Associated with the Implementation
of Inclusive Education (n = 243)**

Items	Disagree f (%)	Not Sure f (%)	Agree f (%)	M	SD
1. No special recognition for teaching an inclusive class (containing learners with disabilities) is given.	20 (8.2)	8 (3.3)	215 (88.5)	2.80	0.57
2. The class size is too large for me to deliver inclusive education in my classroom.	45 (18.5)	91 (37.4)	107 (44.0)	2.26	0.75
3. Teaching learning materials are insufficient for all learners including those with disabilities.	9 (3.7)	22 (9.1)	212 (87.2)	2.84	0.46
4. Appropriate teaching/learning materials for learners with disabilities are not available.	18 (7.4)	5 (2.1)	220 (90.5)	2.83	0.54
5. There is no adequate support by the school for promoting inclusion in your classroom.	23 (9.5)	24 (9.9)	196 (80.7)	2.71	0.63
6. Community does not support sending children with disabilities to school.	26 (10.7)	7 (2.9)	210 (86.4)	2.76	0.63
7. The school does not have a welcoming environment for children with disabilities.	195 (80.2)	15 (6.2)	33 (13.6)	1.33	0.70
8. The school (infrastructure) building is not accessible to some children with disabilities.	59 (24.3)	0 (0.0)	184 (75.7)	2.51	0.86

Source: Field data (2018)   **Key: f**–Frequency, **%**–Percentage,
M–Mean, **SD**–Standard Deviation,

From Table 4.4, the survey items attracted a range of mean score and standard
deviation of 1.33 to 2.84 and 0.46 to 0.86 respectively. Also, 20 (8.2%) of the teacher
respondents disagreed to the statement that no special recognition for teaching an
inclusive class (containing learners with disabilities) is given whereas the 215 (88.5%)
had a mean score of 2.80 and standard deviation of 0.57. Eight (3.3%) of the teacher
participants stated that they are not certain with that assertion. This indicates that,
majority of teacher participants perceive no special recognition for teaching an

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inclusive class (containing learners with disabilities) as a challenge associated with the implementation of inclusive education. Again, 107 (44.0%) of the teacher participants were found to agree with the statement that the class size is too large for them to deliver inclusive education in the classroom. with a mean score of 2.26 and a standard deviation score of 0.75. On the same item, 45 (18.5%) of the teacher participants representing minority declined with 91 (37.4%) of them being not certain. The indication here is that, most of the teacher participants perceive large-class size to be a significant challenge to effective implementation of inclusive education in classrooms.

Moreover, concerning the question that „Teaching learning materials are insufficient for all learners including those with disabilities‟, 212 (87.2%) of the total teacher participants conceded with only 9 (3.7%) of them being in disagreement. Twenty-two (25%) of the remaining teachers were neutral of this assertion that attracted a mean score of 2.84 and a standard deviation score of 0.46. This indicates that, most of the participants perceive the insufficient teaching learning materials as a challenge to the inclusive education success in schools. It is also evident from Table 4.3 that, 18 (7.4%) of the participants registered their disagreement to the statement that „Appropriate teaching/learning materials for learners with disabilities are not available.‟ with a mean of 2.83 and standard deviation of 0.54. However, 220 (90.5%) of the participants agreed to the statement while 5 (2.1%) were undecided. The indication is that, most teachers are apprehensive of the unavailability of appropriate teaching/ learning materials for learners with disabilities in the quest to implement inclusive education.

Table 4.4 again show a mean of 2.51 and a standard deviation of 0.86 for the statement „The school (infrastructure) building is not accessible to some children with disabilities. In relation to this question, 184 (75.7%) of the participants responded in favour whereas 59 (24.3%) participants responded otherwise. It worth to note that, none of the respondents was indecisive. This is an indication that, the inaccessible nature of school (infrastructure) building to some children with disabilities is perceived to be a challenge in the implementation of inclusive education among participants. Similarly, 26 (10.7%) of the teacher respondents disagreed to the statement that community does not support sending children with disabilities to school" whereas the 210 (86.4%) had a mean score of 2.76 and standard deviation of 0.63. Seven (2.9%) of the participants stated that they are not certain with that assertion. This indicates that, majority of participants perceive lack of community support in sending children with disabilities to school as a challenge associated with the implementation of inclusive education.

From the results of the study, 195 (80.2%) of the teacher participants declined to the statement that „The school does not have a welcoming environment for children with disabilities" with a mean score of 1.33 and a standard deviation score of 0.70. Thirty-three (13.6%) of the participants conceded with 15 (6.2%) of them representing minority being not certain. The indication here is that, the schools have a welcoming environment for children with disabilities as disclosed by most of the participants.

**4.5.1 Hypothesis 1: There is no significant difference between male teachers'
perceived challenges and female teachers' perceived challenges in relation
to the implementation of inclusive education in the selected circuits.**

This hypothesis looked for a difference between two groups: male teachers and
female teachers. Table 4.3.1 illustrates variability between the male teachers"
perceived challenges and female teachers" perceived challenges regarding the
implementation of inclusive education in the questionnaire administered.

In analysing data using independent *t*-test, it is considered appropriate to highlight
information on its mean and standard deviation. Table 4.5 provides useful descriptive
statistics for the two groups (that is general and special education teachers).

**Table 4.5: Group Statistics of Teachers' Scores in the Perceived Challenges in
Regarding the Implementation of Inclusive Education (n = 243)**

	Sex	N	Mean	Std. Deviation	Std. Error Mean
Perceived Challenges	Male	107	20.12	2.10	0.20
	Female	136	19.98	2.02	0.17

Source: Field data (2018)

From Table 4.5, the examination of the group means indicates that male teachers (*M* =
20.12, *SD* = 2.10) perceive more challenges in relation to the implementation of
inclusive education than did female teachers (*M* = 19.98, *SD* = 2.02).

An independent samples t-test was conducted to find out whether the observed
difference in mean scores are significant or not in the perceived challenges between
male and female teachers using an alpha level of 0.05. Table 4.6 (Appendix C)
illustrates the variability of means between the two groups. The *t*-test for the

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independent samples results in Table 4.6 (Appendix C) revealed that there is no significant difference in the scores obtained by male teachers ($M = 20.12$, $SD = 2.10$, $N = 107$) compared to that of female teachers ($M = 19.98$, $SD = 2.02$, $N = 136$) in perceived challenges, with $t(241) = 0.54$, $p = 0.59$. The mean difference in perceived challenges between male teachers and female teachers in relation to the implementation of inclusive education was 0.14. Hence, the researcher retains the null hypothesis and concludes that there is no significant difference between male teachers" perceived challenges and female teachers" perceived challenges in relation to the implementation of inclusive education in the selected circuits. Also, the 95% confidence interval for the mean difference between the male and female teachers" perceived challenges was -0.38 to 0.67. Moreover, the assumption of homogeneity of variances was tested and satisfied via Levene"s test for equality of variances with $p > 0.05$ as can be seen in Table 4.6 (Appendix C).

4.6 Research Question 3: What measures can be taken to enhance teachers' perception about inclusive education in the Tamale Metropolis?

The study, in response to the research question, Table 4.6 illustrates the descriptive statistics (frequency, percentage, mean and standard deviation) of the responses on the measures to enhance teachers" perception about inclusive education.

Table 4.6: Descriptive statistics on measures to enhance teachers' perception about inclusive education (n = 243)

Items	Disagree f (%)	Not Sure f (%)	Agree f (%)	*M*	*SD*
1. Teacher incentives would help in the successful implementation of inclusive education.	195 (80.2)	11 (4.5)	37 (15.2)	1.35	0.73
2. Smaller class size is required to ensure successful implementation of inclusive education.	49 (20.2)	0 (0.0)	194 (79.8)	2.60	0.80
3. Adequate teaching/learning materials should be provided for successful implementation of inclusive education.	0 (0.0)	30 (12.3)	213 (87.7)	2.88	0.33
4. Availability of appropriate teaching/learning materials could help successful implementation of inclusive education.	21 (8.6)	35 (14.4)	187 (77.0)	2.68	0.63
5. Successful implementation of inclusive education requires support from school/education authorities.	41 (16.9)	16 (6.6)	186 (76.5)	2.60	0.76
6. Community engagement could improve successful implementation of inclusive education.	173 (71.2)	41 (16.9)	29 (11.9)	1.41	0.69
7. Disability friendly environment helps ensure successful implementation of inclusive education.	14 (5.8)	189 (77.8)	40 (16.5)	2.11	0.46
8. Ensuring accessibility for children with disabilities helps in successful implementation of inclusive education.	9 (3.7)	26 (10.7)	208 (85.6)	2.82	0.47
9. Successful implementation of inclusive education demands more exposure to Inclusive Education practices.	5 (2.1)	6 (2.5)	232 (95.5)	2.93	0.32

Source: Field data (2018)   **Key: f**–Frequency, **%**–Percentage, *M*–Mean, *SD*–Standard Deviation.

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Table 4.6 indicates the range for the mean and standard deviation scores as 1.35 to 2.93 and 0.32 to 0.80 participants respectively. In a bid to find out from teacher participants whether smaller class size is required to ensure successful implementation of inclusive education. A total of 194 (79.8%) of the teacher respondents affirmed the statement with a mean of 2.60 and standard deviation of 0.80. Forty-nine (20.2%) of the teacher participants disagreed with no participant being indecisive. This is an indication that, smaller class size is perceived by most participants as one of the measures required to ensure successful implementation of inclusive education in classrooms. Also, 208 (85.6%) of the participants agreed to the statement that „Ensuring accessibility for children with disabilities helps in successful implementation of inclusive education‟ whereas only 9 (3.7%) of them disagreed which attracted a mean of 2.82 and standard deviation of 0.47. The remaining 26 (10.7%) participants were uncertain about the statement. This means that, ensuring accessibility for children with disabilities could help in the successful implementation of inclusive education as declared by most of the participants.

On whether the adequate teaching/learning materials should be provided for successful implementation of inclusive education, a mean score of 2.88 and a standard deviation score of 0.33 were obtained with 213 (87.7%) of the participants responded in favour while 30 (12.3%) of the participants were uncertain. It worth noting that, none of the participants registered their disagreement to the statement. This means that, most of the participants acknowledge adequate teaching/learning materials to be a crucial measure to ensure success in implementation of inclusive education. The results from the analysis of participants‟ responses as presented in Table 4.4 again show a mean of 2.60 and a standard deviation of 0.76 for the statement „Successful implementation of inclusive education requires support from school/education

authorities. In relation to this question, 41 (16.9%) of the teacher participants to the statement with only 16 (6.6%) of them be neutral in their position. However, 186 (76.5%) were found to be in agreement with the statement. This is an indication that, the success in the implementation of inclusive education requires support from school/education authorities as revealed by the majority of teacher participants.

Also, it is evident in Table 4.6 that one hundred and seventy-three (72.5%) of the teacher participants disagreed to the statement that community engagement could improve successful implementation of inclusive education with a mean of 1.41 and standard deviation of 0.69. Only 29 (11.9%) of the participants agreed to the statement whereas the remaining 41 (16.9%) participants were uncertain. This indicates that, most participants believe that community engagement could improve successful implementation of inclusive education in schools. Moreover, 195 (80.2%) of the participants disagreed to the statement that teacher incentives could help in the successful implementation of inclusive education whereas 37 (15.2%) of them agreed which attracted a mean of 1.35 and standard deviation of 0.73. The remaining 11 (4.5%) teacher participants were uncertain about the statement. This means that, most of the participants perceive teacher incentives as not one of the ways to help in the successful implementation of inclusive education.

CHAPTER FIVE

DISCUSSION OF FINDINGS

5.1 Introduction

In this chapter, significant findings on teachers" perception of inclusive education is interpreted and discussed. The discussions highlight the major study findings based on the research questions/hypotheses, and the inferences made from them in view of findings from related previous studies. These are:

1. What level of knowledge do teachers have about inclusive education in the Tamale Metropolis in the Northern Region of Ghana?

2. What are the perceived challenges of teachers in Tamale Metropolis basic schools with the implementation of inclusive education?

3. What measures can be taken to enhance teachers" perception about inclusive education in the Tamale Metropolis?

4. There is no significant difference in the knowledge about inclusive education between general education teachers and special school teachers in Tamale Metropolis.

5. There is no significant difference between male teachers" perceived challenges and female teachers" perceived challenges in relation to the implementation of inclusive education in the circuits.

5.1.1 Basic school teachers' level of knowledge about inclusive education

Although the study found basic teachers to be having knowledge in using varied learning activities to engage a diverse range of learners, it was however discovered that teachers do not have knowledge in meeting the needs of learners with speech, language, or communication disorder and learners seen as having behavioural difficulties. Also, the findings revealed that basic school teachers do not have knowledge in assessing, testing or evaluating the learning of children with disabilities. Generally, basic school teachers were found of not having adequate knowledge to manage inclusive classrooms.

These findings are consistent to the study by Mprah et al. (2016) that revealed that teachers in the schools chosen for the inclusive education programme had no adequate knowledge of the programme before it was introduced. Similarly, Agbenyega et al. (2005), Avoke (2004) and Mapsea (2006) also expressed concerned about the adequacy of training given to teachers in the Colleges of Education. For instance, Mapsea discosed that teachers admitted they needed more training in the field of educating children with special education in order to accommodate and teach children with special needs. They attribute this to the fact that, special education is not a major component of their course content and therefore do not the opportunity to acquire adequate knowledge in special needs education during their pre-service training. It is therefore required of teachers to be taken through a lot of in-service training to enable them to handle children with special needs in their classrooms. Furthermore, colleges of education and universities need to have more trained lecturers to develop more courses in special education.

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5.1.2 There is no significant difference in the knowledge about inclusive education between regular education teachers and special education teachers

Undoubtedly, there is the need to be aware of the principle and the importance of inclusion for teachers who are considered as key players in the implementation of inclusive education. Among basic school teachers who were studied, special educators were found to possess higher level of knowledge than their general/regular educators" counterpart even though the difference was not statistically significant. This is very alarming since special educators who have been trained specifically to handle children with disabilities in Ghanaian schools are supposed to be knowledgeable in the implementation of inclusive education than general/regular teacher counterpart. From the findings, it could be said that both special school and regular teachers are required to be given more intensive and rigorous training in the knowledge of inclusive education.

This is inconsistent to what Cavusculu (2006) found in a study conducted to examine the current knowledge and views of primary school teachers about teaching students with special educational needs in mainstream schools. In the study, it was found that teachers took courses about inclusive education during their attendance at the university and at the time they engaged in educational activities in the schools. It was also revealed that, teachers sometimes received assistance in inclusive education, in the classroom and outside of it, from the auxiliary professional members. To an extent, this closed the gap of knowledge about inclusive education and support. In effective implementation of inclusive education, one component of student achievement is the ability of teachers to plan together collaboratively. General and

special educators are expected to collaborate when a school implements full inclusion programs that meet every student‟s nœds.

5.2 Basic School Teachers' Perceived Challenges about the Implementation of Inclusive Education

Again, most teachers perceived the insufficient teaching learning materials as a major challenge to the inclusive education success in schools. The study revealed that, most teachers are apprehensive of the unavailability of appropriate teaching/ learning materials for learners with disabilities in the quest to implement inclusive education. Also, inaccessible nature of school (infrastructure) building to some children with disabilities was perceived to be a challenge in the implementation of inclusive education as disclosed by most teachers. These findings indicate that resources are always a concern for basic school teachers when they think about inclusive education. These findings collaborate the findings from previous studies such as Kuyini (2010), Kuyini and Boitumelo (2011) and Ocloo and Subbey (2008). Also, Kuyini and Boitumelo (2011) argued that limited resources and facilities and lack of training for teachers act as a barrier to practicing and implementing inclusive education. Ghana Education Service (2004) supports this argument that without these factors and more, implementing, achieving and practicing inclusive education will be challenging. They state that one of the challenges that Ghana faces with inclusive education is inadequate resources and facilities, which is a threat to achieving inclusive education and "Education for All" (GES, 2004, p.16). Therefore, it is important for the government to provide the necessary resources and facilities for the practice and implementation of inclusive education.

5.2.1 There is no significant difference between male teachers' perceived challenges and female teachers' perceived challenges in relation to the implementation of inclusive education

In comparison, it could be mentioned that among basic school teachers who were studied, male teachers perceive more challenges in relation to the implementation of inclusive education than did female teachers even though the difference was not statistically significant. While we cannot claim a definitive form of inclusive pedagogy, an attempt can be made to stir up a rich and diverse knowledge base that informs the preparation of teachers for inclusive education.

In our contemporary world today, the most salient trend in education involving individuals with disabilities is that of inclusion. Teachers are regarded as a key component in the educational system. However, instruction in the general education classroom is impeded based on the individuals being taught. The need to sensitize educators to this perplexing issue is paramount to the success of all students. If teachers were more receptive toward inclusion, student achievement, socialization, skill acquisition, and access to education would increase for students with disabilities. Professional development is important in the creation of successful inclusive environments. Many teachers are apprehensive about teaching special education students because they feel that they lacked training necessary to meet student needs, and that they had not learned appropriate skills in their career or at professional development workshops (Desimone & Parmar, 2006b; Lohrmann & Bambara, 2006).

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5.3 Measures to Enhance Teachers' Perception about Inclusive Education

Teachers are recognized as persons who play a significant role in the process of delivering inclusive education. It is further asserted that this process of providing education to „all" children can become challenging and difficult to succeed, even with the most accurate plan, if teachers are unable to perform their duties with genuinely good intention and sincere commitment towards students with disabilities (UNESCO, 2000).

From the study findings, ensuring accessibility for children with disabilities could help in the successful implementation of inclusive education as revealed by most teachers. Again, teachers acknowledged adequate teaching/learning materials to be one of the measures to ensure success in implementation of inclusive education. In relation to inclusive practice, student achievement can be compromised unless teacher-training programmes to embrace a new wave of pedagogical practice that value all learners (Carrington, Deppeler & Moss, 2010). Learning to teach in an inclusive setting is a highly complex and dynamic activity, and much to do with context that uses a whole school approach. A whole school approach to inclusive education involves using multiple strategies that have a unifying purpose and reflect a common set of values.

From the study it was found out that, the success in the implementation of inclusive education requires support from school/education authorities and community engagement as revealed by the majority of teachers. This is affirmed by the assertions made by some researchers (e.g., Avramidis, 2005; Ekins & Grimes, 2009; Fullan, 2007; Peterson, 2004) that inclusive education requires that policymakers, teacher educators, teachers, parents, students, and the community working together to create

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education environment that promotes equal opportunity for learning and well-being on social and emotional.

CHAPTER SIX

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

This chapter presents the summary of findings, conclusions and recommendations on the study which was on examining teachers" perception of inclusive education in three educational circuits in Tamale Metropolis in Northern Region of Ghana. The study sought to determine the level of knowledge that teachers in Tamale Metropolis in the Northern Region of Ghana have about inclusive education, it also sought to identify teachers" perceived challenges associated with the implementation of inclusive education in the Tamale Metropolis and find out measures that can be taken to improve teachers" perception about the implementation of inclusive education in the Tamale Metropolis.

The study was a quantitative research that employed the cross-sectional survey method as a design. The instrument used was structured questionnaire to collect the data for the study. A sample size of 253 teachers was selected through census technique. The data was analysed using the SPSS version 20.0 and the findings were observed.

6.2 Summary of Main Findings

On the level of knowledge teachers in Tamale Metropolis have about inclusive education; Even though the study revealed that, teachers have the knowledge to meet the needs of learners with learning disabilities and using varied learning activities to engage a diverse range of learners, knowledge in meeting the needs of learners who are gifted most teachers do not have knowledge to meet the needs of learners with speech and language, or communication disorder. Again, the findings revealed that

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teachers do not have knowledge in meeting the needs of learners seen as having behavioural difficulties. Teachers were also found of not having knowledge in meeting the needs of learners who are blind or have low vision. Furthermore, the study revealed that teachers do not have knowledge in assessing, testing or evaluating the learning of children with disabilities. In the statistical analysis, among basic school teachers who were studied, special education teachers were found to possess higher level of knowledge than their regular education teacher counterpart even though the difference was not statistically significant.

Secondly, on teachers" perceived challenges associated with the implementation of inclusive education in the Tamale Metropolis, the findings from the study revealed that lack of special recognition for teaching an inclusive class was a contributing factor. It was also found that large-class size, insufficient teaching learning materials were major challenge to the inclusive education success in schools. Also, inaccessible nature of school environment to some children with disabilities lack of community support in sending children with disabilities to school were challenge associated with the implementation of inclusive education. In the statistical analysis, among basic school teachers who were studied, male teachers perceive more challenges in relation to the implementation of inclusive education than did female teachers even though the difference was not statistically significant.

Lastly, on the measures that can be taken to improve teachers" perception about the implementation of inclusive education in the Tamale Metropolis the study found that smaller class size and ensuring accessibility for children with disabilities could help in the successful implementation of inclusive education. Moreover, most teachers acknowledged adequate teaching/learning materials and support from

school/education authorities could enhance teachers" perception towards inclusive education. Lastly, community engagement was found as one of the measures to improve successful implementation of inclusive education in schools.

6.3 Conclusions

This study set out to examine teachers" perception about inclusive education in three educational circuits in Tamale Metropolis in Northern Region of Ghana. The perceived knowledge and skill of teachers with regard to inclusive education is inadequate at the basic level in the Metropolis. Among the teachers who were studied, special educators were found to possess higher level of knowledge than their general/regular education teacher counterparts even though the difference was not statistically significant. Aside this revelation, the study showed that there were inhibiting factors to the inclusive education implementation consisting of inadequate materials and facilities available for the teachers to implement the policy of inclusion and a lack of adequate training for teachers to equip them with how to educate students with disability in their classrooms.

It was also found out that the adequate teaching/learning materials and support from school/education authorities and community could help in the successful implementation of inclusive education. This study has brought to bear the hidden perception of teachers relating to inclusive education in the Tamae Metropolis and how it could be explored to improve upon the implementation of inclusive education in Ghana at large. While the participants acknowledged that they did not have adequate training, they felt that training to acquire knowledge and skills for inclusive education would be very useful. The implications of these findings are that in spite of the government"s pronouncements and efforts to support inclusion, teachers would

require more resources and other supports in the future to allay their concerns, build positive attitudes and enable them to contribute effectively to Ghana‟s inclusive agenda.

6.4 Recommendations

The following recommendations were made in light of the findings:

1. On the level of knowledge teachers in Tamale Metropolis have about inclusive education regular in-service education and refresher course will help improve and reorient teachers‟ knowledge towards performing their duties in inclusive education. The study therefore recommends Tamale Metropolis Directorate of Ghana Education Services should collaborate with basic school heads in assisting teachers through the implementation of professional development/training programmes in order to employ adaptive instructional strategies to help children with disabilities.

2. The study recommends that Tamale Metropolis Directorate of Ghana Education Service should reduce the large class through the collaboration with the basic school heads to enhance efficiency in inclusive practices.

3. It is also recommended that the classroom and school environment should be design to accommodate people with disabilities by Tamale Metropolitan Assembly in collaboration with Tamale Metropolis Education Directorate

6.5 Suggestions for Further Research

This study was limited to only some basic schools in Tamale Metropolis. It is suggested therefore that more research work be conducted on the teachers‟ perception of inclusive education across the basic schools in Ghana in order to discover more facts about its implementation and further the course of providing scholarly materials

for future references. It is also suggested that more research be done to intensify education on the need to embrace the implementation of inclusive education in Ghanaian regular classrooms in order to enhance school and community participation for success. The researcher again suggests a further research to be conducted on the impact of teachers" perception on the implementation of inclusive education. This would help both policy developers and implementers to intensify their operations towards improving teachers" perception about inclusive education.

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APPENDICES

APPENDIX A

QUESTIONNAIRE

I am a final year student pursuing a Master of Philosophy programme at the Department of Special Education in the University of Education, Winneba. The questionnaire seeks to solicit information on teacher's perception of inclusive education in the three selected educational circuits in Tamale Metropolis and to gain knowledge about the factors that may influence the implementation of inclusive education in a school system.

Information you provide will be handled confidentially. Your contribution to this study would be highly valued and therefore, it would be appreciated if you could complete this questionnaire.

SECTION A: Demographic Profile

Please tick (√) the appropriate box in response to each question.

1. Sex
   a. Male   (   )
   b. Female   (   )
2. Age
   a. 21-30 years   (   )
   b. 31-40 years   (   )
   c. 41-50 years   (   )
   d. 51+ years   (   )
3. How long have you been teaching
   a) 1-3   (   )
   b) 4-6   (   )
   c) 7-9   (   )
   d) 10+   (   )
4. In which school do you teach?
   a) Special School (   )
   b) Regular education (   )
      Please specify the where you exactly teach.......................................
5. In which educational circuit is the school you teach located?
   a) Gumbihini   (   )
   b) Hospital   (   )
   c) Aboabo   (   )
6. What type of teacher are you?

a) Special School teacher   (   )
b) Resource teacher   (   )
c) Regular teacher   (   )

Section B: Teachers' Level of Knowledge of Inclusive Education

Indicate the extent to which you are knowledgeable in the following using the scale below:

1=Strongly Disagree; 2 = Disagree; 3=Not Sure; 4=Agree; 5=Strongly Agree

S/N	STATEMENT	1	2	3	4	5
1.	Meeting the needs of learners with intellectual disabilities.					
2.	Assessing, testing or evaluating the learning of children with disabilities.					
3.	Using varied learning activities to engage a diverse range of learners.					
4.	Meeting the needs of learners with multiple disabilities.					
5.	Meeting the needs of learners with learning disabilities.					
6.	Meeting the needs of learners with autism.					
7.	Meeting the needs of learners who are blind or have low vision.					
8.	Meeting the needs of learners who are gifted (talented/creative).					
9.	Meeting the needs of learners seen as having behavioural difficulties.					
10.	Meeting the needs of learners who are deaf or hard of hearing.					
11.	Meeting the needs of learners with physical disabilities.					
12.	Meeting the needs of learners with deafblindness.					
13.	Meeting the needs of learners with speech, language, or communication disorder					

SECTION C: Challenges Associated with the Implementation of Inclusive Education

Indicate your level of agreement about challenges associated with the implementation of inclusive education using the scale below:

1=Strongly Disagree; 2= Disagree; 3=Not Sure; 4=Agree; 5=Strongly Agree

S/N	STATEMENT	1	2	3	4	5
1.	No special recognition for teaching an inclusive class (containing learners with disabilities) is given.					
2.	The class size is too large for me to deliver inclusive education in my classroom.					
3.	Teaching learning materials are insufficient for all learners including those with disabilities.					
4.	Appropriate teaching/learning materials for learners with disabilities are not available.					
5.	There is no adequate support by the school for promoting inclusion in your classroom.					
6.	Community does not support sending children with disabilities to school.					
7.	The school does not have a welcoming environment for children with disabilities.					
8.	The school (infrastructure) building is not accessible to some children with disabilities.					

SECTION D: Measures to Enhance Teachers' Perception about the Implementation of Inclusive Education

Indicate your level of agreement about measures to enhance teachers" perception the implementation of inclusive education using the scale below:

1=Strongly Disagree;   2= Disagree;   3=Not Sure; 4=Agree;   5=Strongly Agree

S/N	STATEMENT	1	2	3	4	5
1.	Teacher incentives would help in the successful implementation of inclusive education successfully					
2.	Smaller class size is required to ensure successful implementation of inclusive education.					
3.	Adequate teaching/learning materials should be provided for successful implementation of inclusive education.					
4.	Availability of appropriate teaching/learning materials could help successful implementation of inclusive education.					
5.	Successful implementation of inclusive education requires support from school/education authorities.					
6.	Community engagement could improve successful implementation of inclusive education.					
7.	Disability friendly environment helps ensure successful implementation of inclusive education.					
8.	Ensuring accessibility for children with disabilities helps in successful implementation of inclusive education.					
9.	Successful implementation of inclusive education demands more exposure to Inclusive Education practices.					

APPENDIX B

SAMPLES T-TEST OF TEACHERS SCORES

Table 4.5: Independent Samples T-Test of Teachers' Scores in the Knowledge about Inclusive Education Instruction (n = 243)

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	Df	Sig. (2-tailed)	Mean Diff.	Std. Error Diff.	95% Confidence Interval of the Difference Lower	Upper
T.K	Equal variances assumed	2.90	0.09	0.31	241	0.75	0.21	0.68	-1.12	1.55
	Equal variances not assumed			0.54	8.62	0.61	0.21	0.40	-0.69	1.11

Source: Field data (2018)　　　　**Key:T.K** = Teachers" Knowledge

APPENDIX C

Table 4.6: Independent Samples T-Test of the Perceived Challenges Regarding the Implementation of Inclusive Education (n = 243)

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	Df	Sig. (2-tailed)	Mean Diff.	Std. Error Diff.	95% Confidence Interval of the Difference Lower	Upper
P.C	Equal variances assumed	0.47	0.49	0.54	241	0.59	0.14	0.27	-0.38	0.67
	Equal variances not assumed			0.54	223.72	0.59	0.14	0.27	-0.38	0.67

Source: Field data (2018)   **Key: P.C** = Perceived Challenge