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**TEACHER EDUCATION AND INCLUSION IN GHANA: PRE-  
SERVICE TEACHERS' PREPAREDNESS FOR CREATING AN  
INCLUSIVE CLASSROOM**

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## **ABSTRACT**

Education of pupils with special education needs (SENs) in Ghana has been formed around the medical model where pupils with special needs are diagnosed, labelled and taught in segregated special education institutions disconnected from regular mainstream classroom (Hooker, 2008). Recently, there has been increased focus on the adoption of inclusive education (IE) which seeks to reinforce the competence and efficiency of systems in school to reach out to all learners. Therefore, it is important for regular classroom teachers to be trained in the identification and support of the pupils with SENs in order for them to address the needs of all students. Recent studies in Ghana have concentrated on the perception of teachers towards IE and factors impeding its implementation (Agbenyega 2003; Desai & Kuyini 2006). Inadequate training of teachers is one of factors identified; however, they failed to describe the extent of pre-service teachers' knowledge on the concepts of IE, SENs and instructional strategies for its effective implementation and these were the main objectives for this study. Although, respondents from 200 final year pre-service teachers in three Colleges of Education confirmed the findings of Opoku-Inkoom (2009) that majority of pre-service teachers are knowledgeable of some of the basic concepts of IE and SENs, however, almost half of the respondents demonstrated less knowledge and few of the participants could actually put their knowledge on these concepts into practice. Therefore, the study concluded that full course on inclusive education should be made compulsory for final pre-service teachers couple with a well-planned teaching practice in an inclusive setting to enhance their practical knowledge, skills and attitudes.

*Key words:* inclusive education, teacher education, pre-service teachers, Ghana.

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## **ACRONYMES AND ABBREVIATIONS**

CIRC	Co-operative Integrated Reading and Composition
CPS	Collaborative problem solving
DES	Department of Education and Skills
DfEE	Department of Education and Employment
DfES	Department for Education and Skills
EADSEN	European Agency for Development in Special Education Needs
EFA	Education for All
fCUBE	free Compulsory Universal Basic Education
GDP	Gross Domestic Product
G E S	Ghana Education Service
HIV	Human Immunodeficiency Virus
I E	Inclusive Education
IEP	Individual Educational Plan
MDGs	Millennium Development Goals
MOE	Ministry of Education
NGOs	Non-Governmental Organisations
PALS	Peer-Assisted Learning Strategies
SpED	Special Education Division
SEN	Special Educational Needs
SENDA	Special Educational Needs and Disability Act
UNESCO	United Nations Education science and Cultural Organisation
VSO	Voluntary Services Overseas

# 1 INTRODUCTION

According to UNESCO's 2009 report, there has been substantial rise in the access to education and enrolment rates in many countries and regions have increased. This is a major-league in the progress of attaining the goals of the Education for All (EFA). However, simply sitting in classroom does not guarantee that one's needs are being met. Access to school does not mean access to curriculum and it does not also mean all pupils feel included in regular mainstream classroom. The report further states that, in spite of countries consenting to the many conventions and supporting international guidelines on children with special needs, discrimination, unfairness, suffering and exclusion still form part of everyday life of pupils with special needs around the world. These are partly due to so many misconceptions people have about children with disability and Special Educational Needs (SENs) as well as lack of quality teacher preparation.

For instance, in many Ghanaian communities, disability is belief to be caused by anger of gods or punishment from gods as a result of an offence committed by the victims or their family, or through witchery or sorcery (Agbenyega, 2003). As a result, students with disabilities are given abusive and dehumanizing labels based on superstitious and cultural beliefs. Hittie & Peterson (2003) argue that labels, like medical model of disability and SEN, describe the deficits that students possess which call for specific treatment and suggest the kind of services they require. Also, labels influence society to disconnect itself from the people with disability and SENs and encourage the establishment of segregated schools. According to Ainscow, Booth, & Kingston (2006), disability labels deflect attention from the difficulties experienced by other students without the label, and form sources of difficulties that may occur in relationships,

cultures, the nature of activities and resources, the way practitioners support learning and policies and organisational settings. Superstition and cultural beliefs is barrier to inclusive education because pupils with disabilities and SENs are excluded by these negative attitudes towards them (Agbenyega, 2003; Desai & Kuyini, 2006; Ocloo & Subbey, 2008). These traditional beliefs are the major causes of the society's discriminatory attitudes, actions, cultures and policies and influences the way disable and SEN people are perceived and the kind of treatment meted out to them.

Unfortunately, in Ghana, teachers are the main perpetrators of these crimes in mainstream classroom. For instance, Agbenyega (2003) research brought to light how classroom teachers use disability labels. From his observation of four classrooms in Accra metropolis, the capital of Ghana, he concluded that disability labels are powerful tools, or weapons that society and teachers use to suppress and exclude students with SEN. Students with visual impairment he interviewed described how they were caned by teachers and failed exams many times due to their poor vision and writing skills. He recorded that teachers used insults such as 'stupid', 'idiot', 'lazy', 'block headed' etc. as labels and teachers use of physical punishment such as 'canning', 'knocking', 'pulling of ears', and 'pinching were superabundant in the mainstream classroom. Which means that, the life of these pupils in schools is that of a miserable one because they do not have friends, they are in mainstream school but they feel excluded. They are teased by other pupils because everyone gets to know that they have failed and that they always perform poorly.

As a result, most pupils with SENs either do not attend school regularly or fail and are made to repeat their classes for several years and in the long run they either dropout or asked to leave by school authorities (Agbenyega, 2003; Adera, 2007). Therefore, UNESCO (2009) reported that, people with disabilities are more likely of becoming

illiterates, diminishing their chances in higher education and employment, because schools and other centres of learning do not provide quality education that supports and responds to their diverse needs. According to UNESCO (2009), EFA Global Monitoring Report, 75 million children are still out of school, 774 million adults lack basic literacy skills and innumerable are others in school and yet not getting the quality of education they need. And children with disabilities account for one third of all out-of-school children (p. 5).

Because they lack education, consequently, they account for as many as 1 in 5 of the world's poorest. Lack of education is one of the major causes of unemployment and poverty. People with good education are more employable and they enjoy higher earnings, better health and a longer life than uneducated people. Therefore, the social and financial cost of educational failure in the long-term are very inarguably high because the state would have to provide costly for the health, income support, child welfare and social security system of those lacking skills to be employed. A study has shown that every country loses large proportion of gross domestic product (GDP) when persons with disabilities are kept outside the labour market (UNESCO, 2009). Today, poverty is one of the major threats to world's peace and a major cause of exclusion in most part of the world. And disability is a principal root cause of social exclusion; because people with disabilities have low status in society.

In recent times, there have been numerous agitations for better treatment and inclusion of pupils with disability/SENs in the mainstream classroom. The world Declaration on Education for All (EFA) affirmed in Jomtien, Thailand in 1990, sketched out *inclusive vision* to universalise access to education for all children, youth and adults. Goal three of the EFA actually aims at making sure the learning needs of all people and adults are satisfied through equitable access to appropriate learning and life-skills programmes.

Inclusion is a series of actions directed to address and respond to diverseness of needs of all pupils by increasing participation in learning and abating the dropping out children within and from education. It is therefore the process of reinforcing the competence and the efficiency of the systems in education to reach out to all learners which is an essential step in the achievement of the EFA goals and the MDGs (UNESCO, 2009).

Inclusive Education (IE) proposes a blueprint for meeting the needs of special needs children and adults and other socially excluded or vulnerable people, who normally constitute the poorest of the poor in developing countries. IE is about both getting children into and through school by developing schools that are responsive to the actual, diverse needs of children and communities (Stubbs, 2002). It is therefore about both access and quality and is a ways and means for reaching the principal goals as affirmed in the EFA and MDGs action frameworks. IE plays an important role in the achievement of social equity. Its principal objective is to defeat exclusion which results from bad mental outlook and absence of acknowledgement of diverseness in race, economic status, social class, ethnicity, Language, religion, Gender, sexual orientation, and ability in schools and classrooms (UNESCO, 2009).

One of the strategic objectives of the flagship under the EFA is to promote teacher education (UNESCO, 2009). Teachers lacking skills and knowledge in the identification and support of the pupils with SENs can themselves become challenge to the pupils learning and participation in education. Hence, it is very important for regular classroom teachers to be trained in identification of and the support of the pupils with SENs in order for them to bring out the best in every child regardless of their needs. According to Norman, Caseau, and Stefanich (1998), little evidence exists describing the

preparedness of educators who are teaching students with special education needs and disabilities.

Many recent studies done in this area in Ghana concentrated on the perception and attitude of in service teachers towards IE and factors impeding the implementation of IE in Ghana (Agbenyega 2003; Desai & Kuyini 2006; Ocloo & Subbey 2008). All of them identified inadequate training of teachers as one of the major factors affecting the implementation of inclusive education in Ghana; however, they failed to describe: a) the extent to which the pre-service teachers are knowledgeable of the concept of inclusive education. b) The extent to which final year pre-service teachers are knowledgeable of special educational needs and disabilities. That was why this study was executed to find out the extent of pre-service teachers preparedness for creating an inclusive classroom by looking at factors such as their knowledge of the concept of inclusive education, special educational needs and instructional strategies.

Most researchers put the blame on the fact that large class sizes will not allow the teachers to pay individual attention to these pupils (Gadagbui, 2006; Gyimah, 2010). But this cannot be use as an excuse to exclude them because if teachers are well trained to inclusively teach pupils with SENs, they can do it despite the huge number of pupils in some classrooms. Perhaps, regular teacher training courses do not give them enough skills and knowledge as far as SENs and inclusive practices are concern. Although, there are other factors such as inflexible syllabus which is firmly examination-orientated and highly competitive, however, well trained teachers can make significant adaptations.

## **1.1 Special Educational Needs and its Educational Provisions in Ghana**

The term Special Educational Needs (SENs) was framed by Warnock's report (DES, 1978) in the late 1970s in England. According to the report, a child has SENs if he has a learning difficulty which calls for special educational provision to be made for him (Education Act 1996 [DfEE, 1996] and SENDA, 2001 [DfES, 2001b, section 312]) cited in Hodkinson & Vickerman, 2009, p. 3). This term places emphasis on the child's educational need instead of his learning disability which was the case when children were previously labelled different categories of handicap describing their impediments which does not communicate the type of educational provision that is required. Which means that in England and Wales disability is only one type of SENs because a child can be disabled and not have SENs. On the contrary, a child requiring special educational provision in the USA is referred to as 'disabled', and under their law, all pupils with disabilities require Individual Educational Plan (IEP) (Farrell, 2001).

This implies that definitions and categories of SENs differ from one country to another. However, according to Hodkinson & Vickerman (2009), legally, the term SENs defines children who have learning difficulties or disabilities that make it more difficult for them to learn or access education than most children of the same age (p. 3). According to the Special Education Division (SpED) of Ghana Education Service (GES) program information document (SpED, 2007), Ghana categorises learners with SENs in compulsory school sector within ten categories. They are; visually impaired, hearing impaired, intellectually disabled, learning disabled/Autism, physically disabled, gifted and talented, behavioural problems, speech and language problems and serious medical concern e.g. HIV, sickle cell etc.

Generally, children with SEN in Ghana are educated in residential special schools or special boarding schools or special day schools (Avoke, 2008, p. 11) and the deaf/hard of hearing, the blind/students with low vision, orthopedically challenged, the mentally challenged and the death-blind are the five main categories of SENs officially given special education either by government and Non-Governmental Organisations (NGOs) or private individuals (Avoke & Avoke, 2004, p. 30). However, special education provision for children with SENs has been criticised for its academic and social limitations.

## **1.2 Limitations of Special Education**

Special education was designed to boost educational outcome for students with learning problems, to offer people with special needs a specially designed, professional services based on their unique needs in segregated environment specially designed for them. Segregated special education classes with few students should have enabled the teachers to improve upon the learning experiences of the students through the use of individualise instruction and learning styles. However, studies have found out that this has not happened (Hittie & Peterson, 2003).

Although Will (1986) pointed out that special education accomplished some successes, thus, it;

- *Refined the concept and the practice of individualised instruction,*
- *Redefined the role of parents in the education of the child,*
- *Made education possible for numerous severely handicapped children who were out of school, and*
- *Improved services for several millions others (cited in McLeskey, 2007. P.45)*

However, she and other authors have established that it has failed in its quest to meet the educational needs of students (Hittie & Peterson 2003; Will 1986 cited in McLeskey, 2007). According to some of them, segregation poses problems relating to civil and human rights and challenges the kind of community we want to create and live. Segregation discriminates against people based on their ability, sexual orientation, gender, socio-economic status, ethnicity and features of colour. Classification of students into ability groups or categories is disturbing not only because of the biases in the standardised tests which has been used as a sole determinant of students classification but also because its connection with discrimination against minority in society. And this results in overrepresentation of minority in special education classes. Academic grouping also conflicts with the goals of school integration, equal educational opportunities, equal group status, and cross-racial student contact (Wright, Hirlinger & England, 1998).

Another limitation that remains the most controlling perspective in the special educational field is the custom of describing educational difficulties in terms of the characteristics of individual pupils, thus, explaining poor academic performance in terms of student's disabilities, social background and/or psychological attributes which consequently has led to the removal of students from the mainstream classroom for segregated special class (Clark, Dyson & Millward 1998; Will 1986 cited in McLeskey, 2007).

Several studies have also argued that separate special schools have not produced any positive results. Hittie & Peterson (2003) reported several efficacy studies by Carlberg & Kavale (1980), Wang & Baker (1986), and Baker (1994) which have shown that segregated special education has been ineffective in terms of both academic growth and attainment of Individualised Education Plan goals. Also socially, there is stigmatisation

of students who have been placed in special segregated schools which cut them off from relationship with others and inhibit friendships and social interactions (Hittie & Peterson 2003; Will 1986 cited in McLeskey, 2007).

In addition, Stainback & Stainback (1984) explained that the existence of special education alongside the regular education has been inefficient in the sense that it breeds needless and costly categorisation of students base on their defects which results in stereotyping and this practice is in contradiction with the assumption that students differ, each with his/her own abilities (as cited in McLeskey, 2007). According to Reynolds, Wang & Walberg (1987) the categories use in special education have been ill-defined and unreliable and lack evidence of validity (cited in McLeskey, 2007. p.56). Also, besides the disputes surrounding the reliability and the validity of the academic grouping techniques and its resultant denial of minority students access to quality and equal educational opportunities, the quality of instructions in special education schools has also been questioned. According to Gartner & Lipsky (1987), the teaching and learning taking place in special education schools is poor because of “dumbing down” or “watered-down” curriculum (cited in Wright, Hirlinger & England, 1998).

Will (1986) has also argued that students with special educational needs and disabilities are enrolled into special programs only when significant deficits have been identified, deficits that could have been corrected during the early developmental stages and that she is of the view that the special education programs exist to address only failures instead of prevention. She further explained that the system frustrates both parents and schools who have to comply with rigid rules and eligibility requirements for their child.

The categories or disability labels have negative effects on both teachers and the students themselves. It lessens teacher's expectation of students thereby affecting their academic progress. The particular labels specialist put on them sometimes do not relate to the problems experienced by those students. The students often use their labels as an excuse not to take part in any learning activities in classroom and as well separate them child from others in his classroom thus, affecting their self esteem (Ainscow, Booth, & Kingston, 2006; Dunn's 1968 as cited in McLeskey, 2007).

More so, many studies have established that countries all over the world face shortages of special education teachers as compare to general education teachers in spite continuous demand for them due to low enrolment rate (Adera, 2007; Cook & Boe, 2006). Consequently, this shortage of special education teachers has led to unacceptable large class sizes and less qualified teachers in special schools substantially restricting the ability of field of special education to provide quality education and other services to the many students with special needs and disabilities

Casely-Hayford's (2002) report on the situational analysis of special needs education in Ghana stated that there is only one College of Education responsible for the training of teachers for special needs education. Despite this inadequacy, the report also brought to light other setbacks such as decreasing enrolment, unwillingness of teachers to teach in special schools, and high level of resignation due to factors such as poor remuneration and lack of job satisfaction. Cook & Boe (2006) identified two different kinds of special education teacher demand; the quantity demand which is the demand for the number of special needs teachers to fill all the teaching positions that have been created and funded and quality demand which is the demand for teachers with specific qualification such as certification level, certification field, amount of teacher preparation, and major field. The exit of SENs teachers and their movement to better

schools are high in price events, both for the special needs and disable students, who lose the quality of being taught by a professional teacher, and to the schools and districts, which must recruit and train their replacements (Adera, 2007). And there is every indication that the increase special education teacher vacancies, their numerical shortages and students with disabilities will continue to increase (Adera, 2007; Cook & Boe, 2006).

Stainback & Stainback further argued that the existence of the dual system creates unnecessary contention among education professionals and repetition of services for students with special educational needs and disabilities which results in the ongoing lack of coordination at the teacher training level and lack of cooperation at both local and school level in terms of sharing of knowledge and resources to better meet the needs of all students.

Many countries are spending so much on special education and segregation of students with SENs and yet researchers have concluded that it is having little or no impact. In a nut's shell, Dunn's (1968) classic article cited in McLeskey (2007) used the following shortfalls of special classes for students with mild disabilities as a basis for mainstreaming and inclusion;

- Lack of academic performance and social progress and poor post-secondary outcomes for students with mild disabilities in special schools.
- Lack of demonstrated efficacy of the segregated self-contained classes.
- Special classes lead to increased racial integration because most of the children taught in these special schools are socioculturally deprived children from poverty, broken, inadequate homes, and low status ethnic groups with mild learning problems labelled as educable mentally retarded. And putting these so

called “misfits” into special classes will only encourage homogeneous grouping depriving them of having a relationship with children from middle class homes.

- Special education also leads to rising militant teacher organisations calling for establishment of more special classes.

Having stated the above cogent reasons for the ineffectiveness of separate special education programs, civil and human rights movements alongside parents and other special education professionals have advocated for community type of treatment (Hittie & Peterson, 2003 & McLeskey, 2007). Community is a stage where difference is valued and celebrated and everyone is believed to have a gift and community is incomplete when the gifts of every individual irrespective of their ability are not recognised (Hittie & Peterson, 2003). Here, the potential of all students are identified and given the necessary support to reach their full potential. Consequently, there have been a lot of organisational approaches to correct some of the shortcomings of segregated schools.

McLeskey (2007), pointed out how the terminology used to describe the education of students with disabilities in general education has changed over time; mainstreaming which was considered as a privilege for those students with mild disabilities who did not required significant changes in general education curriculum and instructional practices, was popular from 1960’s through to the early 1980’s. He argued further that the basis for mainstreaming has been that the student with special educational needs will adjust and be ready to partake in general education classroom with little accommodation for the student’s needs and that the general education classroom will not have to change. Followed by Integration and Regular Education Initiative which Lipsky & Gartner (1997) explained as class merging in which special education class of students with mild disabilities merged with a regular class where teachers co taught (cited in Hittie &

Peterson 2003). Thus, students enrolled in special education classroom were given an opportunity for integration in regular schools.

All these approaches did not completely abolished the homogenous ability groupings of students with disability and SENs and this has led to the development of inclusive education which encourages the use of push in services instead of pull-out programs which were characteristic of mainstreaming, class merging and integrated education. And contrarily, to mainstreaming and integration, inclusion is considered as the right of all students with disabilities, the assumption being that general education will change to meet students' needs (McLeskey, 2007). Therefore, there are increasing numbers of school who are making it possible for students with disabilities and others with difference to learn together well. And this has come with a lot struggle (Hittie & Peterson (2003). In Ghana, there have been some few pilot schools practicing inclusive education, where students with disabilities who attended segregated schools previously are being welcomed into schools. In inclusive schools, students without disabilities are encouraged to become friends with those with disabilities (Hittie & Peterson, 2003).

### **1.3 The Concept of Inclusion**

Inclusive education, as indicated by Hittie & Peterson (2003), came with two fresh and extremely distinct principles, which are:

- Inclusion of all students, with mild to severe disabilities, in general education classes.
- Provision of supports and services within the general education class for both teachers and students (push-in services) (p. 43).

Ainscow, Booth, & Kingston (2006) also noted that, inclusion does not only relate with students with disabilities and SENs but is also much associated with increasing participation of all students. It includes how to remove barriers and encourage active involvement of all students in learning. According to them, exclusion incorporates all the short-term and longer-term difficulties that impede complete participation like problems among students, among educators, within families, and more importantly, issues with teaching and learning activities that do not sustain students' interest. Exclusive pressures are manifold and may take many different forms. Inclusion seeks to remove all these forms of exclusion.

They further argue that, inclusion recognises both differences and similarities among all students in a manner that treats everyone equally. Inclusion does not place high value on students because of their progress and attainment, it does not only recognise that students differ from each other but also respects the diverse ways in which students respond to individual tasks. The efforts put in identifying and solving the problems of student with difficulties end up benefiting all students. Thus, inclusive classrooms and schools, the diverseness among students' interests, knowledge, skills, background, home language, attainment or impairment can be a valuable resource to support learning.

In a nutshell, Booth, Ainscow & Kingston (2006) stated the following characteristics of inclusive education;

- Increasing the participation of students and reducing their exclusion from, the cultures, activities and communities of local settings.
- Restructuring the cultures, policies and practices in settings so that they are responsive to the diversity of all students.
- Valuing equally, all students, parents/carers and practitioners.

- Viewing the differences among students as resources to support learning and participation rather than as problems to be solved.
- Acknowledging the right of students to good quality education in their locality.
- Making improvements for educationist as well as students.
- Reducing barriers to learning and participation for all students not only those with impairments or SENs.
- Emphasising the development of community and values, as well as achievements.
- Fostering mutually sustaining relationships among between schools and communities.
- Recognising that inclusion in education is an aspect of inclusion in society.
- Putting inclusive values into action. (p. 4)

Inclusive schools is about building communities more widely, for examples schools working with other agencies and with surrounding communities to improve educational opportunities and social conditions within their localities.

Some of the characteristic features of an inclusive classroom and school settings identified by Hittie & Peterson (2003) are; engaging teaching techniques, commitment to educating diverse students together, collaboration among teachers and specialists in regular classroom to support students with special needs rather than separate education classrooms as well as school policies supporting teachers. In inclusive schools, every student, irrespective of their culture, language, and academic, social-emotional, and sensory abilities attends and learns with other students. Hittie & Peterson (2003) put together the following classroom, school and instructional practices that are characteristics of effective inclusive schools:

- Reaching out to parents of all students; paying particular attention to helping parents of students with special needs to know that their students are welcome and are part of the school community. And this can be achieved through actions such as inviting parents in inclusive classroom to read to class or assist in

learning activities, meeting parents and discussing with them their children gifts, strengths, needs and interests from their parents own view.

- Provision of support for teachers and students by other specialists in general education classes in dealing with multiple ability levels and needs of students. Teachers work together as part of a team.
- Providing authentic, multilevel instruction specifically designed to engage students in meaningful activities in which they learn together at different ability levels; this may involve making adaptations and modifications in academic instruction.
- Building a community among students, staff, and parents: a community in which all feel welcome, all belong, emotional intelligence and social skills are taught, and relationships are nurtured.
- Designing the physical environment of the classroom and school to promote learning and growth among students with diverse sensory and physical characteristics; adapting the environment and using assistive technology to help students learn more effectively.
- Demonstrating leadership and learning through dialogue and democratic decision making (p. 43, 44).

## **1.4 Benefits of Inclusive Education**

The ulterior motive of the concepts of inclusive education, inclusive teaching and inclusive classroom is to create a society in which all people irrespective of their ethnicity, cultural, linguistic, sexual, gender, and socioeconomic differences are valued, supported and cared for. Inclusive schools and communities are becoming functional all over the world and people with disabilities and SENs are at the spearheading this movement (Hittie & Peterson, 2003). Researchers have found out that it has the following benefits:

Hittie & Peterson (2003) cited several studies by Baker 1986; Baker 1994; Brinkler & Thorpe 1984 that found out that students with disabilities and SENs are learn more effectively in regular classroom and their presence does not negatively affect the learning of the other students. Research has continuously proven that the academic performances of students with special educational needs improves in both integrated and inclusive settings and boost the attainment of Individual Education Plan (IEP) goals.

Also, Inclusive schools that educate all children together well is very cost-effective than to establish different types of schools for different group of students with special needs (UNESCO, 2009). This is less costly especially, in low income countries where government find it difficult fund education because of insufficient national budgets, lack of development assistance and where a lot of poor parents cannot afford the cost of education.

Moreover, Giangreco, Dennis, Cloninger, Edelman & Schattman (1993) study revealed that inclusion is beneficial to the students with disabilities, nondisabled classmates and the teachers themselves. The result of their study indicates that, many general education teachers who have had students with disabilities in their class discovered that students with severe disabilities become more active and sensitive to their environment and their acquisition of communication, social, motor, academic and other skills improve. Also the teachers observed that the level of the social/emotional growth of the nondisabled classmates improves as they become more flexible and aware of the needs of the students with disabilities. Their result further established that the presence of the students with disabilities caused teachers to be more reflective on their practices and

increased their confidence to undertake teaching in a more adaptable style (as cited in McLeskey, 2007).

In addition, according to UNESCO (2009), inclusive schools are able to change attitudes toward diversity by educating all children together, and form the basis for a just and non-discriminatory society (p. 9). This means that, socially, the segregation of students with special needs leads to withdrawal from society. However, inclusive school settings will help students cultivate relationships and be part of community. Inclusion renders discrimination against minority ineffective because it ensures normalized community participation by providing all children with systematic instruction in the skills essential to their success in the social, environmental, and political contexts in which they will ultimately use these skills.

Smith, Finn & Dowdy (1993) support inclusion not only because of the discriminatory nature of the present dual system but also because of the fact that, according to them, 20 percent of students' population have special needs; but, because they have not been given any category, they are not given any special education services. And therefore, inclusive education generates joint efforts that are needed to provide equal and quality services to all students (cited in Knight, 1999). In the same vein, UNESCO, (2009) states that developing ways of teaching that cater for individual differences and benefit all children is an important requirement for inclusive schools. Additionally, students of low or average abilities learning together with students of higher abilities improve the achievements of the students with lower abilities (Wright, Hirlinger & England, 1998) and the inclusion of students with special educational needs in regular classroom improves the quality of teaching.

## 1.5 Implementation of Inclusive Education in Ghana

The comprehensive objective of identifying and overcoming barriers to educational opportunities, and enhancing quality and equality in education and making it accessible for all children, youth and adults was approved at the World Declaration on Education for All in Jomtien, Thailand in 1990. Subsequently to that was the adoption of fundamental policy to promote inclusive education (IE) at World Conference on Special Needs Education: Access and Quality, held in Salamanca, Spain, June 1994, attended by 300 participants from 92 governments and 25 international organisations. IE is a comprehensive principle to guide all education policies and practices so that education systems can be strengthened to reach out to all learners. It is based on the beliefs that education is a basic human right and a foundation for more just and equal society (UNESCO, 2009, p. 8). Ghana, as signatory to this principle and other legal frameworks that are in support of inclusion such as; Universal Declaration of Human rights, Convention against Discrimination in Education, Convention on the Right of Persons with Disabilities etc, is required to implement it.

Even though, prior to the enactment of some of the legal frameworks and principles that support the education of all learners, Ghana had carried out vital educational reforms in the past that recognise education as an essential human right for all Ghanaians, for example, Education Act of 1961 which made formal education *free and compulsory for all children* and *Free, Compulsory And Universal Basic Education (fCUBE)* made possible by Article 38(2) of 1992 Constitution of the Fourth Republic of Ghana (Fafunwa and AisiKu, 1982 cited in Oppong, 2003, p. 12; Agbenyega, 2007, p. 42). These two major reforms, although, seem to make education accessible to *all* children, however, they fell short of making special mention of children with disabilities and

special needs (Avoke & Avoke, 2004; Oppong, 2003) and have not changed society, educational system and school culture (Agbenyega, 2007, p. 41) resulting in schools not practicing true inclusive education but just integration which sees the child as a problem and expect the child to change (Gadagbui, 2006, p. 3). The au courant policy advancement to strengthen the existing fCUBE policy of promoting access, retention and participation of students of school going age is the Capitation Grant which provides free school feeding programme in schools with needy children (Agbenyega, 2007, p. 42)

It has been advocated that government policy and educational legislation are key elements of effective framework of law and policy that promote the implementation of inclusive education. Therefore, it is recommended that countries should clearly state inclusion is a goal and that governments must have clearly stated and communicated policy towards inclusive education and these will facilitate the provision of facilities that encourage the implementation of inclusive education (UNESCO, 2009, p. 14; Watkins, 2003, p.6). Implementation of inclusive education policy means making educational reforms to tackle exclusion and without clear national reforms, many countries will not attain the EFA goals by 2015 and this has a consequential effect of affecting the achievement of MDG's, warned UNESCO's 2009 report. However, Ghana does not have a clearly stated "legislation and clear cut policy" on inclusive education (Avoke, 2008, p. 7).

Nonetheless, Avoke (2008) has explained that the Special Education Division (SpED) of Ghana Education Service (GES) is making a lot of efforts to broaden services for children with special needs. He further revealed that the Government of Ghana Annual Education Sector Operational Plan 2003-2005 accompanying the Education Strategic Plan 2003-2015 stated IE as an official educational policy. And among others, the

objectives of the policy stated that; support system must be in place for children with SEN by 2015, attendance of children with SEN in schools must be increased to 50% in 2008, 80% in 2012 and 100% in 2015 which therefore means that IE in Ghana must be achieved by 2015 (p.16).

The responsibility for the provision and management of the education in Ghana lies with the Central Government and the Ministry of Education (MOE) is tasked to carry out the responsibility on behalf of the Central Government through the formation of policies, planning and the monitoring of its execution. The mission of MOE is to:

*“Provide relevant Education to all Ghanaians at all levels to enable them acquire skills that will assist them to develop their potential, to be productive, to facilitate poverty reduction and to promote socio-economic growth and national development”* (SpED, 2007, p.2 ).

Therefore, even aside the concept of inclusion, the overall mission of the MOESS sounds very inclusive. The MOE also emphasize the achievement of an inclusive education system by 2015 as part of its vision in the Education Strategic Plan (2003 – 2015) (Avoke, 2008).

According to the SpED program information document (SpED, 2007, p. 3); the vision of SpED of GES is to create an inclusive education system, where students with special education needs and those with disabilities benefit from quality education to make them independent and employable in order to contribute to the development of the nation. The IE blueprint approved in the SpED’s policy scheme centres on social model for provision which encourages learners with disabilities to be included in mainstream schools to become effective members of society. The social model focuses on

everything in teaching and learning environment, which can create impediments to learning (Ainscow, 2004).

The strategic activities to promote the implementation of inclusive education stated in the Education Strategic Plan 2003-2015, among others, include;

- Organisation of screening and identification of children with special needs.
- Organisation of sensitisation workshop for parents and children with special needs.
- Incorporation of training in SEN into all Colleges of Education. (As cited in Avoke, 2008, p. 16)

Currently, some of these activities, among others, are being piloted in selected district education directorates of Greater Accra, Eastern, Central and Volta and Northern regions by British nongovernmental organisation, Voluntary Services Overseas (VSO), which has entered into an agreement with the government of Ghana to pilot inclusive education (Ghana Education Service/VSO project document, 2003 cited in Agbenyega, 2007, p. 44).

Hence, government of Ghana has taken some initiatives to pilot project inclusive education within the “context of school based projects”, and “community-based rehabilitation project” (Avoke, 2008, p. 7), however, Ghana, like any other country, has its fair share of challenges that confront the successful implementation of this policy.

## **1.6 Challenges to the Implementation of Inclusive Education in Ghana**

According to Ainscow, Booth, & Kingston (2006), inclusion is an unending process of improving learning and participation for all, an ideal or aspiration that is never fully reached. There is no fully inclusive set up. Barriers to learning and participation is one of the key concepts, that when effectively dealt with, can create the necessary environment for inclusive development. They argued that barriers to inclusion are manifold; for example, institutional discrimination which arises as a result of the way institutions are structured such as school set up, the physical arrangement, and the organisation. It also involves different ways which disadvantage people are excluded because of their age, gender, disability, class, ethnicity, or sexual orientation as well as their educational history and qualifications. Moreover, the relationship among students and adults and the nature of teaching and learning activities can also create barrier to student's learning.

Furthermore, disability itself is a major barrier to student's active involvement in learning process. Similarly, the concept of 'special educational needs', a characteristic feature of institutional discrimination, can be a barrier to inclusive development because it influences a wide array of societal practices, cultures and policy making such as the writing statements of special education need, the identification of student's difficulties in the Special Education Needs Code of Practice, the use of Individual Education Plans. Barriers can also unavoidably go beyond the school environment and may be found within the communities and local and national policies. Identification of these barriers can be very useful in finding solutions to improve the learning of all students. Also, the lack of innovative skills, poor planning and preparation, inadequate supports for

students and teachers and negative and adversarial attitudes of teachers have been found as barriers to inclusion (Hittie & Peterson 2003). Booth, Ainscow & Kingston (2006) are arguing for the use of inclusive terms such as learning support co-ordinator, learning development co-ordinator or inclusion co-ordinator instead of special educational needs co-ordinator because they reflect an inclusive values.

In Ghana, Agbenyega (2007) citing Sayed, Akyeampong & Ampiah, (2000) argued that; lack of continuous professional development of teachers, inadequate resources and ineffective monitoring systems are some of the challenges facing 'access', 'retention' and 'quality of education for all' (p. 42). Accessible and flexible curricula, textbooks, learning materials will promote the creation of inclusive schools (UNESCO, 2009, p.19). Also, inadequate training of both pre/ in service regular classroom teachers, parents, peers and society on issues of special educational needs and inclusive education and inaccessible curriculum and school buildings are also part of the problems confronting the government of Ghana for making the dream of educational inclusion possible (Gadagbui, 2006, p. 2; GES, 2004 cited in Agbenyega, 2007, p. 43). Besides, traditional method of teaching, which is the case in most Ghanaian classroom (Agbenyega, 2003) where teachers place much emphasis on facts and definitions from textbooks, with little or no emphasis on the use of knowledge or inculcation of higher-order thinking skills, is a great barrier to inclusion (Luft & Pizzini, 1998).

Furthermore, superstitious and religious beliefs which result in stigmatisation and 'attitudinal problems' (Avoke, 2008, p.6; Gadagbui, 2006, p.3) such as; negative attitudes and prejudices of people with SENs and disabilities (Agbenyega, 2007, p.43) are some of the critical impediments to the implementation of inclusive education in Ghana. In addition, Agbenyega's (2007) study that focused on attitude and concerns of Ghanaian teachers' in both inclusive piloted and non-inclusive piloted schools toward

the implementation of IE found out that large class sizes emerged as a challenge of uttermost concern to teachers and actually influences most of the antagonistic perspectives of teachers toward inclusive education (p. 49) which confirms UNESCO's 2009 argument that class sizes is one of the factors which influences teachers' attitude. Gadagbui (2006) has also mentioned it as a barrier that prevents individual attention. Avoke, (2008) citing Asamani, (2000) estimated the average class sizes between 60 and 90 in Ghana, he further argue that in a country where mainstream teachers lack support, such arrangements will make it for students with special needs to be included and accommodated for.

Similarly, Gyimah's (2010) study also concluded that although majority of teachers are aware that appropriate classroom physical environment is crucial for inclusive education, however, Ghanaian basic school classrooms lacks enough space due to large class sizes and therefore makes it impossible for teachers to actualize certain instructional strategies such as allowing children with SEN to engage in certain activities elsewhere in the classroom (p.7). However, UNESCO, (2009) has stated that: *"quality assessed as learning outcomes relates much more to the quality of teaching than to other factors such as class size or classroom diversity"* (p. 12). It can therefore be deduced that teachers' knowledge about inclusive teaching strategies can bring about quality teaching and create an inclusive classroom.

## **2 The Concept of Inclusive Teaching and Teacher Preparation**

In this section, particular attention will be paid to the concept of inclusive teaching and teacher preparation for IE.

### **2.1 The Concept of Inclusive Teaching**

Advocates of inclusive education admit that its successful implementation depend not only teachers' eagerness to include students with special needs in their mainstream classrooms but their preparedness and their willingness to make instructional modifications for them (Gartner & Lipsky, 1987 cited in Schumm & Vaughn 1991). Adera's (2007) investigation into the factors that forces teachers of students with special education needs and disabilities to exit their job revealed that some of the causes of high special education teacher mobility are teacher preparation factors. Lack of skills, knowledge of effective instructional strategies and low expectations that teachers have are some of the teacher preparation factors identified and these results in high rates of absenteeism, unacceptable levels of school drop-out and lack of confidence and commitment regarding teachers' ability to plan academic instruction. Yet, weak academic performance exhibited by those with special education needs and disabilities are most of the time blamed on their personal challenges such as failing grades, school drop-out, suspension, attendance issues and post-school outcome.

Adera (2007) findings also support the fact that, lack of effective instructional strategies and classroom management skills are also to be blamed. These lacks result in high stress levels among teachers and a major contributory factor to poor academic performance among students with special needs. Consequently, there is therefore the need for

teachers to be equipped with the knowledge and skill to enable them develop effective instructional programs which will improve educational experiences, achievements for all students and teacher retention because teacher quality has a great deal of influence on teacher commitment and effectiveness (Abram, 2005; Hill & Barth, 2004; Ingersoll, 2001 as cited in Adera, 2007).

Inclusive teaching means moving special education needs, gifted, at-risk, and other students from segregated education to general education and educates all students together well, it means designing for diversity from the beginning. Inclusive teaching is relevant to the continuing global effort to create schools and communities in which differences are valued and celebrated (Hittie & Peterson 2003). According to Hittie & Peterson (2003), teachers can intentionally seek to become inclusive teachers. They argue that inclusive teachers recognise the fact that even children of the same age do not learn at the same rate or level and every class contains students operating at three to six different grade levels and based on their knowledge of differentiated instruction and universal designs, are able to sketch lessons at multiple levels to fire up students at their own levels, support student in collaborative pair and group work to reach their next level of learning. They are able to draw up learning activities that are relevant to students' multiple intelligences, learning styles as well as their lives at home and community. Any teaching method that accommodates many levels of ability, engages children in real-world, provides students with choices in terms of learning activity and problem-based projects have proven to be effective inclusive instructional strategy. Supporters of inclusive education are of the belief effective instructional strategies will improve teaching and learning and create an inclusive classrooms (Hittie & Peterson 2003).

They also described four building blocks of inclusive teaching that also offer valuable strategies for differentiated learning as; *multilevel teaching, scaffolding, multiple intelligences and learning styles*. They explained that multilevel teaching is when teachers design learning goals and learning activities *carefully* to challenge and engage all students at their own levels i.e. abandoning one-size-fits-all curriculum. Scaffolding is where teachers and other adults provide support to other students to perform difficult activities and to reach the next level of learning. They further argue that inclusive teaching also take into consideration the different ways in student think (multiple intelligences), thus; through words, reasoning, images and pictures, bodily sensations, music, talking with other, self-reflection and through their interaction with nature and environment. And lastly, identifying the diverse learning styles of students will assist teachers to be aware of students' strengths and help them to design lessons to meet individual needs (p. 162)

Stainback & Stainback (1984) contended that there are no two different types of instructional methods- one for students with special educational needs and another for regular students. Their article further states that only few of such instructional methods exist, if any, that can be identified as effective for special students or regular students (cited in McLeskey 2007, p. 61). However, many researchers and authors have identified and described several effective teaching strategies that can help create inclusive classroom. They recorded that instructional approaches such as cooperative learning, co-operative learning, collaborative group problem-solving, heterogeneous grouping, effective teaching and individual planning enable students with differing abilities to learn together well and are most effective within inclusive education (Giangreco et al 1993 cited in McLeskey, 2007; Hittie & Peterson 2003; Meijer, 2001, 2004; Watkins(2003);).

## **2.2 Inclusive instructional Strategies**

**2.2.1 Co-operative teaching:** Co-operation between general and special education teachers has been described by terms such as team-teaching, co-teaching, and collaborative teaching or collaborative teaming (Meijer, 2004). It involves teachers planning with other teachers (a specialist teacher or colleague), the head teacher and other professionals at various stages of intensity, from regular teamwork on learning activity to teaching lessons (Hittie & Peterson 2003, p. 130; Watkins, 2003, p.14) to provide an intervention in the same classroom to heterogeneous group of students involving students with or without special educational needs (Meijer, 2004). This means that students with special educational needs are not withdrawn from classroom for special services but they are provided for them within the regular classrooms.

Giangreco et al study (1993) explained that the physical presence of paraprofessionals serves as an important source of encouragement and motivation to general education teachers dealing with student with disabilities. In addition, they argue that both specialists and teachers working on students with disabilities must have a 'shared framework and goal' and the goal must be how to better incorporate them in general classroom activities. The study also identified teamwork as the most important source of technical, resource, evaluation and moral support (p.330).

A qualitative study by Rice & Zigmond (2000), on teachers' views on co-teaching testified that both students and teachers benefit from co-teaching, especially teachers can learn a lot from each other, however, they advised that compatibility among teachers and school-wide commitment to inclusion and administrative support are crucial for its successful practice (as cited in Meijer, 2004).

Co-operative teaching has been found to be effective in improving the time students spend on learning tasks and minimizes classroom behaviour problems (Meijer, 2004). Also the findings of a study conducted by Lundeen and Lundeen (1993) on the efficacy of collaborative teaching in the mainstream classroom shows that it improves students' academic performance (as cited in Meijer, 2004) and another study by Self et al (1991) also concluded that it is effective in improving students' reading performance and learning rate (as cited in Meijer, 2001, 2004).

**2.2.2 Co-operative learning:** It is group of instructional strategies in which teacher provides guidelines to a group of students to work (Murray, 2002 cited in Thousand, Nevin & Villa, 2002) to help each other to accomplish task that they cannot do alone, especially when they have unequal levels of ability and each benefiting from learning together (Watkins, 2003, p.14). Murray (2002) explained that during cooperative learning, class of students with similar age but different abilities, ethnicities and gender are put into groups of four to six while a teacher provides pre-designed instruction to help them work together. Co-operative learning practices are in fact one of the key principles of full inclusion, argued by Giorcelli (1995) cited in Knight (1999). And this view is supported by Sapon-Shevin, Ayres & Duncan (2002) beliefs that cooperative learning is vital for inclusive schooling because; it benefits all students, it is an integral part of current school reform efforts and lastly it promotes collaboration between educators (cited in Thousand et al, 2002, p.209). They further affirmed that cooperative learning is important in inclusive classrooms because it makes use of heterogeneous grouping and enhances peer support, connection and mutual respect and learning.

The effects of co-operative learning approach on the reading and writing abilities of both handicapped and non-handicapped students was studied by Stevens & Slavin (1995b) (as cited in Meijer, 2001). They described another co-operative learning

approach that is used to teach elementary reading and language arts, Co-operative Integrated Reading and Composition (CIRC) which consist of story-related activities, direct instruction in comprehension strategies, and integrated writing and language arts, was employed as part of the study. During its application, teachers explained strategies and students were assigned to heterogeneous ability teams to collaborate on the following eight stories related activities:

- Partner reading: students read the story silently first, then orally with their partners.
- Treasure hunts: students were given questions that focused on understanding of what happened in the story. Students were asked to predict how the characters might solve problems that occurred in the story and to clarify why the characters behaved in a particular way.
- Words out loud: students practised new words with their partner.
- Word meaning: students were asked to write the meaning of the new words and to use them in meaningful sentences.
- Story retelling: students summarized main events in the story to their partners.
- Story-related writing: students were given a writing topic related to the theme or events in the story.
- Quizzes: students were given a comprehension quiz about the story, were asked to write meaningful sentences using new words, and were asked to read the new vocabulary aloud to the teacher. The students complete these quizzes independently. Individual scores were used to determine the team score; this connects the success of the group with the success of each group member and motivates group members to help one another.

- Independent reading: students were asked to read 20 minutes silently each evening. Students were required to complete a book report every two weeks.

When pre- and post-tests were conducted on reading and language arts, it was found that the co-operative learning strategy improved academically handicapped students' achievement in reading vocabulary and reading comprehension after the first year and in the second year, learning disabled and non-disabled students also had better performances in reading vocabulary, reading comprehension and language expression (as cited in Meijer, 2001).

**2.2.3 Peer-Assisted Learning Strategies (PALS):** PALS is one of the empirically validated peer tutoring strategies that has been found to increase students' achievement in reading. It was developed as a strategy to provide diverse group of students in general education classroom with challenging and motivating activities (McMaster, Fuchs & Fuchs, 2002 cited in Thousand et al, 2002, p.236). Fuchs et al (1997) conducted a study that explored the effectiveness PALS. Students were put into pairs and were engaged in reading activities such as: partner reading with retell, paragraph summary and prediction relay. They found out that learning disabled student, non-disabled but low-performing student and student who is average achiever made considerable gains across the three reading activities than their counterparts in No-PALS classrooms (as cited in Meijer, 2001).

**2.2.4 Collaborative problem solving (CPS):** During this strategy, students are guided to find solution to physical, social or instructional exclusion together. Students are motivated to begin the process of finding solution themselves and create an atmosphere of shared responsibility (Meijer, 2001). For example, teachers, setting clear classroom rules and borders with all the learners-alongside appropriate (dis)incentives. This

strategy has been proven to be effective in promoting inclusion (Meijer, 2001, p. 31) and decreasing the amount and intensity of disturbances during lessons (Watkins, 2003, p.14).

Meijer (2001) reported a study by Salisbury, Evans & Palombaro (1997) on the effects of collaborative problem-solving (CPS) on heterogeneous elementary consisting of 100 students without disabilities, 17 students with mild/moderate disabilities, 12 students with severe/profound disabilities. They identified physical, social and instructional instances that illustrate exclusion and students were asked to solve the problem together in the following five steps:

1. Identifying the issue: ‘What’s happening here?’
2. Generating all possible solutions: ‘What can we do?’
3. Screening solutions for feasibility: ‘What would really work?’
4. Choosing a solution to implement: ‘Take action.’
5. Evaluating the solution: ‘How did we do? Did we change things?’

The findings of the study indicate that CPS is a vital strategy for enhancing physical, social and instructional inclusion of students with disabilities in the classroom. They argued that through this approach students learn to work with others to solve problem and empathize with other and more importantly cultivates acceptance, understanding and friendship among diversity of students (p. 29).

**2.2.5 Heterogeneous grouping:** Has proven to be one of the effective inclusive instructional strategies. It involves teachers compiling a brief profiles about students in terms of variables such as; academic abilities, behavioural and social challenges and needs, socioeconomic status, race, gender and how students relate with one another (Hittie & Peterson 2003, p. 128) to make a mixed ability level groups (Watkins, 2003,

p.14). In heterogeneous groups, students become very important resource for student support and it offers a more differentiated approach to teaching diversity of learners in classroom.

**2.2.6 Classwide Peer Tutoring (CWPT):** Delquadri, Greenwood, Whorton, Carta & Hall (1986) described Classwide Peer Tutoring (CWPT) as effective instructional strategy for an inclusive setting (cited in McLeskey, 2007). The strategy was developed as part of an effort to improve instructions for minority, disadvantaged, and/or learning disable children. CWPT systems, according to them, are based on the following three principles; Opportunity to respond, functionality of key academic skill areas, and behavioural principles that facilitate responding.

According to them, within the CWPT, learning is view as the product of eco-behavioural interaction in the class; that is, environmental factors (e.g. time allocated for instruction, curriculum, tasks presented to students, and teacher behaviours) and the levels of active students responding (e.g. reading aloud, writing, and talking academic) are considered critical to students achievement (p.256). They are of the view that there is an important link between teaching procedures, students' reaction and attainments, therefore, students' active involvements in instructional process and the availability of continuous and organised opportunities to respond through correction and feedback brings about an improvement in student's academic performance.

They further argue that this strategy creates all these opportunities of responses by training peers to monitor their own classmates' responses on key instructional skills in practicing math facts, practicing spelling word lists, practicing vocabulary words and their meanings, and definitions, textual oral reading, or answering comprehension questions. Alongside the improvement in the opportunities to respond and selection of

key instructional skills, they stated that the strategy also relies on behaviour principle which includes both individual and group social and token reinforcements.

The result of a study that examined the effectiveness of CWPT with collaboration between special and general teachers indicates that it improves academic responding, decreases the level of competing behaviour among students with and without disabilities in an inclusive classroom (McDonnell et al, 2001 as cited in Meijer, 2004) and increases the problem solving skills of both students (Allsop, 1997 as cited in Meijer, 2004). Also Kamps et al (1994) examination of the effects of CWPT on the inclusion of autistic students concluded that CWPT is an efficient and effective strategy for increasing academic achievement for both students with autism and their non-disable peers (as cited in Meijer, 2001, p. 20). Moreover, CWPT has been found to enhance social skills by increasing social interaction time during unstructured free time activities (p. 30).

Furthermore, teachers have the responsibility to sketch out effective learning experiences that meet the learning needs of all students as well as national curriculum standards and Udvari-Solner et al (2002) describe *decision-making process for differentiated instruction which takes place during instructional design points* as effective process (91). They argue that, during the design point in lesson planning, teachers have an opportunity to deliberate about lessons plans that can effectively enhance students' access to curriculum content, processes and products.

Also, according to Prawat (1992), adoption of constructivist approach to teaching and learning will help teachers change their views on teaching and learning and I would like to argue that it will also help them to create inclusive classrooms. Student teachers must be capacitated with a new set of theories about teaching and learning such as constructivist theory to bring about striking change in the way teachers view teaching

and learning, and this is the responsibility of teacher education institutions. According to him, the constructivist teaching and learning approach would replace the inflexible and teacher dominated classroom pedagogy, as described by Agbenyega (2003) with one that is more involving and interactive between teachers and students. It enables teachers to treat curriculum as dynamic ideas that can be analysed and used as a guide book rather than a fixed agenda. Constructivist principles enable students to discover and construct knowledge for themselves (Udvari-Solner et al, 2002).

A study on *transformational experiences of teachers educating students with disabilities* by Giangreco et al (1993) revealed that, the common approach used by general education teachers to handle students with several unique characteristics was to treat students with disability in general education classrooms like any other kid in the class by building on their similarities. The teachers did not single them out but included them in every activity because, according to the teachers, singling them out will make them perceive themselves as different. They also preferred using instructional strategies that were more 'active', 'participatory' and 'typical' such as manipulative, games, projects, labs, field study rather than passive approaches such as lecture method (as cited in McLeskey, 2007 pp.330).

Research has shown that problem-solving method of teaching enhances the formation of cooperative learning groups, increases the cohesiveness of the cooperative learning groups, and increases the participation of students in learning (Luft & Pizzini, 1998). Hence, Problem-solving model encourages student-centred inquiry. In addition academic instruction needs to address multiple intelligences, diverse learning styles and also provide opportunities for real life applications to ensure relevance for each student (Abrams, 2005 cited in Adera 2007).

However, several studies have found out that of all the instructional strategies that are at the disposal of teacher to use to create an inclusive classroom, some of them are more desirable and feasible than others (Schumm & Vaughn, 1991 cited in McLeskey, 2007) and some of them are most often used by teachers while others are sometime or less frequently used (Gyimah, 2010).

Schumm & Vaughn's (1991) research on teachers' perception of the desirability and feasibility of general classroom adaptations for mainstreamed students concluded that all adaptations are conceived to be more desirable than feasible. They found out that providing reinforcement and encouragement, establishing personal relationship with mainstreamed student and involving mainstreamed student in whole class activities were the most desirable adaptations while adapting long-range plans, adjusting physical environment of classroom and adapting scoring/grading criteria were the least desirable adaptations.

And the most feasible adaptations identified by teachers were; establishing routine appropriate for mainstream students, providing reinforcement and encouragement, establishing personal relationship with mainstreamed student and involving mainstreamed student in whole class activities while communicating with mainstreamed student, adapting regular materials, using alternative materials and providing individualised instruction were identified as least feasible. The result of their study implied that teachers consider social and motivational adaptations more desirable than changes in planning, curricular, instructions and environment.

Similarly, Gyimah (2010) carried out a study which examined teachers' use of instructional strategies in primary schools in Ghana and their implications for inclusive education. The study examined the responses of 500 regular education Primary School

teachers from three of the ten regions in Ghana on 22 instructional strategies for creating an inclusive classroom. The result of the study indicates that teachers most often use instructional strategies such as; ensuring that the classroom environment is comfortable for all children, ensuring that the classroom is spacious to allow for free movement, ensuring that questions are fair and evenly distributed to allow children to contribute to lessons, trying to arrange my classroom to encourage participation and constantly monitor all my children while they do class work (p. 5).

The result further states that in service Primary School teacher sometimes; select instructional materials that make it possible for all children to learn, vary the pace to help the children to learn, give sufficient time to all children to complete tests and assignments, give individual attention to children who need help, give sufficient time to all children to practice what they learn, present tasks in bits to allow children to learn efficiently, set instructional objective (s) to cover all children including those with SENs and disabilities, keep daily records of the progress children make in class, mix up the children when they are performing assignment, and ask children to help each other (p. 6).

And lastly, the less frequently used instructional strategies by in service Ghanaian Primary School teachers are; to move to a new section or unit when all children have understood and can perform what they have learned, to select learning tasks that children with SENs and disabilities can do, to allow children who have difficulties writing the chance to answer questions by saying it orally or verbally, to approach consultants for advice when I do not know how to make all children learn, to let children with SENs and disabilities work at different activities when assignment is given, to design individualised education plan (IEP) for children with SENs and

disabilities and to allow children with SENs to engage in certain activities elsewhere in the classroom (p. 7).

### **2.3 Teacher Preparation for Inclusive Education**

With the contemporary emphasis on inclusion and the call of the several human right organisations, acts and policies for an increase in access of regular educational curriculum for students with special education needs and disabilities have far-reaching repercussion on the pre-service teacher preparation. All the stakeholders who see to the education of children such as; teachers, other professionals, non-teaching support staff, parents, communities have invaluable capabilities that can support the creation of inclusive schools and communities but in my opinion, teachers have the ultimate role to play. Prawat's (1992) article recognises that teachers are the influential catalyst of change in any push for educational transformation, however, they can undoubtedly, be an impediment to the implementation of IE, especially, when they adhered to old-fashioned kind of superstitious and religious beliefs that result in negative attitudes and prejudice of people with SENs, and teaching that provide students with facts and methods instead of deeper understanding of concepts.

It has been reported that pre-service teacher preparation programs does not equip them with enough skills to address the diverse students academic needs and also teaching interns struggle to put into practice the theoretical concepts learned during pre-service training to real world in which they teach (Adera 2007). And in Ghana, several studies have cited lack of quality teacher preparation as a barrier to successful implementation of IE (Avoke, 2008; Kuyini & Desai, 2006). Others also describe that “methodologies” and “assessment practices” at both initial Colleges of Education and some of the teacher training universities do not equip teachers to make any instructional accommodations

for students' with SENs and disabilities (Agbenyega & Deku, 2011; Avoke, 2008, p. 11). Agbenyega (2003) also describes the teaching and learning in Ghanaian classrooms as teacher centred. Teachers treat all pupils on the same intellectual basis without any respect for individual differences, they do not respond to diverseness of needs as result those who fail to perform well are subjected to physical punishment. He also noted that the monotonous and inflexible way of teaching curriculum establish the basis for the excessive labelling and construction of disabilities and thus, bring out teachers' incompetency. According to him, teachers do not have time for pupils with disabilities and SEN because they assume nothing can be done to help these pupils because they are just stupid. Therefore, they see pupils as the cause of failure – not the teachers themselves, not the curriculum, nor the teaching methods. Research by Kuyini & Desai (2006) also concluded that Ghanaian teachers are deficient in the necessary competence of making instructional adaptation to meet the needs of pupils with SEN. Meanwhile, the increasing diversity in students' population still continues to confront general classroom teachers.

The successful implementation of mainstreaming/inclusive education will depend on general classroom teachers' ability and willingness to make instructional adaptations. Teachers are the ones that can bring about inclusive classrooms and they can only achieve that aim when they are well-trained in inclusive practices and concepts because their views on teaching and learning will influence their classroom practices. Well trained teachers with a good knowledge in SENs/IE instructional strategies can discontinue the abuse of students with disabilities, caused by the socio-cultural and traditional values of Ghanaian community. Teachers' understanding of how inclusive education works, what works within inclusive settings and the conditions for effective inclusive education is very important for its implementation because inclusive education

relies on what teachers do in classrooms (Meijer, 2004). As a result, there are strong debates over how best to prepare high-quality and highly qualified teachers because the academic and social accomplishments of all students – those with and without special educational needs and disabilities, rely on teachers. Here, I describe how some colleges/universities are preparing pre-service teachers to support inclusive education.

### **2.3.1 Aotearoa New Zealand**

Purdue, Gordon-Burns, Gunn, Madden & Surtees (2009) in their efforts to explore the different theoretical and practical possibilities of teaching inclusion differently in early childhood teacher education to equip their early childhood teachers to address the rights and the needs of all children, came up with some reforms in their early childhood teacher education courses. The course reforms began with the introduction of a compulsory inclusive education course for both final year pre-service and in-service bachelor and diploma-level early childhood teacher education students (Gunn et al, 2004 cited in Purdue et al, 2009). This was a major transformation in course content that was so focused on disability ‘to a broader focus on multiple perspectives including disability, gender, sexualities, class/socioeconomic status, bi-culturalism and multiculturalism’ (Purdue et al, 2009, p. 806).

However, the focal point of the inclusive education course was how teachers make accommodations for children with disabilities in regular education classroom. But, with their view that inclusion is also more about welcoming all diversity in its different forms, they went beyond their traditional methods of teaching inclusion and tried new ideas. Some of the ideological frameworks that provided them with different ways of thinking about inclusion in their reformed course includes; “post structuralism”, “discourse”, “Doing difference differently”, and “respect”. For poststructuralism, they

argue that pre-service teachers understanding of ‘interconnections between individuals’ which is a central theme in poststructuralism, is an important step for them to appreciate “individual’s subjectivity, the impact of power relations, structural inequalities and discrimination on possibilities for inclusion”. They cited MacNaughton’s (2005) poststructuralist view that describes knowledge as ‘inherently and inevitably contradictory and that many different truths about the world are possible’ (p. 808). Discussions on this will help pre-service teachers acknowledge the many different ways of thinking about inclusion.

The second way they work with students in their reformed course is discourse as well as analysis of discourses, they argue, will help pre-service teachers to understand the complexity of their practice. For example, in their reformed course, discussing the concept of family using heteronormative discourse bring to light the different ways that families might look like such as; ‘nuclear families’, ‘inter-generational families’, ‘lesbian families’ and ‘single parent families’ etc (p. 809) which goes beyond the type of families teachers are concerned with: opposite-sex families. They argue that using this discourse, the teachers are able to think about people who are included and excluded by enrolment practices which solicit the documents with details of only mothers’ and father’s perceived living together.

The third way is doing difference differently. This according to them is to change pre-service teachers’ understanding of difference in terms of ‘deficit view’ to the understanding ‘that difference is a necessary component of all social systems’ (p. 809). Citing Booth & Ainscow (1998) and others, they argue that the justification of many exclusionary and discriminatory practices against others is the view that they are different from us and how the differences are negatively viewed. Therefore, they caution that when teachers view differences as deficits to be surmounted then they will

view children with SEN and disability and their parents as the problem in lieu of their knowledge, skills, attitudes and understandings. They further argue that viewing differences as deficits also has the tendency to make teachers and other professional to concentrate their efforts on preventive and remedial treatment strategies with the aim of changing the child to adjust to their dyed-in-the-wool skills, procedures and methodologies. Accordingly, when pre-service teachers are engaged in discussion about the different kinds of discourses about disability, will equip them to avoid some of the unfavourable beliefs about difference and diversity. For example, teachers will uphold the view that all children have a right for quality education when they view disability from the rights perspective. And last but not the least, inculcating the tenets of respect into pre-service teachers to equip them to create classrooms where ‘respect’, ‘fairness’ and ‘equity’ are upheld (Ballard, 2003 cited in Purdue et al, 2009, p. 810).

### **2.3.2 Cyprus**

Moreover, Lancaster & Bain’s (2007) study also examines the effect of inclusive education course and field-based experience on the effectiveness of pre-service elementary education teachers. The findings of the study suggest that inclusive education course has more practical improvement on pre-service teachers’ self-efficacy than practical experience. They therefore concluded that direct field-based experience alone is not enough to improve self-efficacy of pre-service teachers. A similar study by Angelides’ (2008) which tried to find out how inclusive education expresses itself in the ‘practices’, ‘activities’ and ‘behaviours’ of student teachers in Cyprus (p. 1) indicates that student teachers who were introduced to inclusive education course during their training displayed inclusive practices, activities and behaviours during teaching practice. They showed welcoming attitudes towards marginalised children and put in a

lot of efforts to include them in all classroom activities. These findings, he acknowledged, that they are in support of the arguments that initial teacher preparation in inclusive education has important role to play in the promotion of inclusive practices in their prospective schools (Nes, 2000 cited in Angelides, 2008)).

Furthermore, Villa, Thousand & Chapple (1996) also suggest several ways pre-service teachers can be well prepared to support inclusive education in their prospective schools. They cited several reports from Lyon, Vaassen, & Toomey (1989) that only few programs exist that equip pre-service teachers with skills, knowledge and attitudes they need to make meaningful accommodations for students with special needs and that pre-service teacher preparation programs are yet to instil confidence into student teachers that they can teach all children. According to Avoke, (2008), such is the case in Ghana. They therefore recommended certain changes in the content and format of both pre-service and in-service teacher preparation programs. They recommended that the present dual system of teacher preparation programs-general education, special education and all the other categories which ill-equip teachers to make meaningful adaptations for increasing heterogeneous student body must be abolished to make way for a merge teacher training programs. They argue that such merger will make teacher educators model effective collaborations for student teachers in terms of sharing knowledge and resources.

They further suggested that skills, knowledge and experiences in collaborative planning, teaching, evaluation and problem-solving processes will equip pre-service teachers to create inclusive classrooms. They also cited steps for merger suggested by Stainback & Stainback (1989) that general and special education faculties must analyse teacher education curriculum to find out the gaps in it and formulate new courses that comprise areas such as those in table 1;

Table 1  
Suggested Courses for Teacher Education Curriculum

<b>Courses</b>	<b>Credit Hours</b>
Historical/Philosophical Foundations of Education	3
Child and Adolescent Development	3
Human Relations and Sensitivity to Human Differences	3
Classroom Organization, Management, and Motivational Strategies	3
Curriculum Design and Adaptations	3
Educational Measurement and Authentic Assessment	3
Peer-Mediated Strategies( cooperative group learning, peer tutoring, students as peacemakers and mediators of conflict)	3
Adapting Instruction to Individual Differences	3
Use of Audiovisual/Media/Computers/Technology	3
Home, School, and Community Relations	3
Issues and Trends in Education	3
Creativity and Collaborative Teaming	3

Source: Villa, Thousand & Chapple (1996, p. 43)

They then described practices in certain teacher training institutions that have put into practice the steps suggested by Stainback & Stainback (1989). Besides, the teacher preparation programs, in some of the colleges/universities they described, have restructured and are using an ‘interdisciplinary/thematic instructional approach’ to prepare teachers for both regular and special schools as they receive theoretical and practical training in both regular and special education (p. 44). Also they describe that, some of the teacher preparation program pay special attention to multicultural education and equip student teachers with the necessary skill for the cultural diversity of the 21<sup>st</sup> century schools. Similarly, another university has restructured its teacher preparation program in such a way that professors from both general and special education department model collaborative approach to curriculum planning and team teaching.

### **2.3.4 United Kingdom**

Also, Golder, Norwich & Bayliss (2005) argue that as part of an effort to move towards a more inclusive education system, there is the need for teachers to be equipped with the knowledge and attitudes to enable them teach students with diverse characteristics from the beginning of their profession. Their report also gives a vivid account of the efforts University of Exeter secondary Post Graduate Certificate in Education (PGCE) have undertaken to improve pre-service teachers' knowledge, skills and attitudes to strengthen them to make instructional accommodations for all students. Besides their initiative of introducing a compulsory course in special educational needs for all pre-service teachers and teaching practice in regular education classroom; they also give methodical strategies for individualised instructions with a lot of internet resources for them to work comprehensively with one student with special needs in their first teaching practice. A clear instruction that requires of them to plan and teach one student with SEN in their subject area and the rationale and the aim of the teaching practice, the assessment and intervention strategy steps they have to follow, assessment checklist, procedure for activity report brief are all provided on a specially designed website that is accessible to all pre-service teachers anywhere. This is to help pre-service teachers to develop positive attitudes and behaviours and to cultivate hands-on experiences of teaching and assessing students with SENs in an inclusive classrooms. The pre-service teachers who took part in this type of teaching practice reported that it improved their knowledge and understanding in special educational needs, differentiation and policy issues.

UNESCO (2009) also suggested that, as part of important steps to move the policy of inclusive education forward, there is the need for teacher education programmes both at

pre/in-service levels to be reorganised and follow inclusive education approaches in order to provide teachers with the necessary instructional strategies to enable them meet the diversity of students needs. They further advocate that provision of incentives for both pre/in-service teachers through “increasing salaries”, “better living quarters”, “home leaves” and “increasing respect for their work” will encourage them to put in their best (p.17).

UNESCO (2009) states that ‘teachers positive attitudes towards inclusion depend strongly on their experience with learners who are perceived as ‘challenging’ (p. 20). And this has been confirmed by research that general education teachers firstly have freezing experience and cold attitude towards students with disabilities, however, having spent time with them, their attitude transforms and they become more responsibly involved with students with disabilities than never before. According to the study, those who transformed cultivated an enthusiasm to; “interact with the student”, “learn skills needed to teach the students”, and “change their attitude towards the students” (Giangreco et al, 1993 cited in McLeskey 2007, p. 329). Therefore, UNESCO (2009) recommends that there is the need for a change from “long theoretical pre-service-based teacher training to continuous in-service development of teachers” and this will help teachers to develop “flexible teaching-learning methodologies” (p. 20).

If teachers are being trained for an inclusive classroom, then the whole criteria of teaching practice, as it is termed in Ghana, must be reviewed to include effective instructional techniques with the chance for hands-on experience within real classroom settings with students with SEN and disabilities. It is an important argument that experienced professional teachers who have been on the field and spent long time with SEN and disable students should be given the opportunity to mentor teacher interns because both have something to learn from each other. In my view, the experienced

teachers have got some experience about teaching by virtue of their continuous practice. Because teaching as a skill, is acquired in field through learning and practice for its effective cultivation rather than only in academic contexts of training institutions (Carr, 2003).

Unfortunately, the authority or expertise with regard to what is to count as good teaching has shifted from the realms of professional practice to the academy (Carr, 2003). Carr (2003) further argues that, it is the educational researchers in the universities rather the field professionals who are best placed to determine effective educational method. On this view, the teaching of experienced teachers has been subjected to the external authority of experts and the teaching practice of teacher trainees are observed by only educational researchers and academicians rather than experienced teachers in the field. According to him, the currently fashionable competence models of professional preparation, which have had much influence on recent policy making in relation to teacher education, have two noteworthy features: Firstly, such models are clearly traceable to the sort of scientific approaches to pedagogy. They are predicated on the idea that professional expertise is reducible to a set of discrete experimentally testable behaviours. Secondly, the promotion of such models has mostly been politically rather than professionally motivated: precisely, they have been supported mainly by those whose interest lies in securing the accountability of teachers to centrally prescribed norms.

The most recent study in Ghana in relation to pre-service teacher preparation for inclusion was carried out by Opoku-Inkoom (2009). He examined 300 third year pre-service teachers preparation for inclusive education in Ghana. The result of the study indicates that 87.1% of the respondent affirmed that they have been introduced to inclusive education. He argues that, perhaps, the teacher education curriculum has been

improved to prepare teacher to create an inclusive classroom. The study also found out that majority of pre-service teachers could not explain the concept of inclusion, notwithstanding, majority of respondents agreed to most of the main ideas essential for creating an inclusive education. They agreed that parental involvement is essential in inclusive education, inclusion is essential to human dignity, inclusion creates enabling environment for all children, inclusion recognises the fact that children have a wide diversity of characteristics and community participation is essential to inclusion. The research further revealed that, all the Colleges of Education in Ghana follow the same curriculum, which several researches have describe it as deficient in equipping teachers to meet the needs of children with SENs and disabilities in the regular classroom (Avoke & Avoke, 2004). And they also engage in two semesters of heavily supervise teaching practice as part of their practical training but majority of them undertake their practical training in regular schools.

### **3 STATEMENT OF THE PROBLEM, RELEVANCE OF THE STUDY, PURPOSE OF THE STUDY AND RESEARCH QUESTIONS**

#### **3.1 Statement of the Problem:**

It is now more than 60 years since the nations of the world, speaking through the Universal Declaration of Human Right, asserted that “everyone has a right to education” (UNESCO, 2009, p. 31). Yet it is beyond doubt that across the world many children do not receive adequate and quality education, including large numbers who have disabilities and special needs. Schools do not provide quality education that meets the diverse needs of pupils with special needs. This is true of developed and developing countries (UNESCO 2009). In Ghana many pupils with disabilities and special needs who fail to achieve satisfactory progress in school learning and receive less favourable treatment than other children. These pupils with special needs are made to repeat or drop out of school through no fault of theirs. They are excluded indirectly by lack of knowledge on the part of the teachers on how to inclusively teach pupils with different needs. Recent international surveys give strong evidence that the integration of pupils said to have special education need is seen as being a matter of priority in many countries both the developed and developing world (UNESCO 2009). Yet, classroom for all is still a castle in the air which is yet to be attained in most countries including Ghana.

#### **3.2 Relevance of the Study:**

The study is intended to find out pre-service teacher preparedness for creating an inclusive classroom. The findings will help the policy makers and implementers of IE to know the extent of pre-service teacher’s preparedness to create an inclusive classroom

which will contribute to review and modification of the content of the curriculum on Special Needs Education/ Inclusive Education for College of Education in Ghana, because they will know where to start from to address the situation.

### **3.3 Purpose of the Study:**

Altogether, the main intention of the study was to find out whether final year pre-service teachers in the Colleges of Education have enough knowledge and skills for creating an inclusive classroom. And specifically to explore:

- Pre-service teachers' knowledge of special educational needs and disabilities
- Pre-service teachers' knowledge of the concept of inclusive education.
- Pre-service teachers' knowledge of the instructional strategies for creating an inclusive classroom.

### **3.4 Research Question:**

The following study questions guided the researcher to achieve the purpose of the research listed above:

- To what extent are final year pre-service teachers in the college of education in Ghana knowledgeable about the concept of inclusive education?
- To what extent are final year pre-service teachers in the college of education in Ghana knowledgeable about special educational needs and disabilities?
- What type of instructional or pedagogical strategies teachers prefer to use to create an inclusive classroom?
- What are the challenges associated with the inclusion of students with special educational needs and disabilities in regular schools in Ghana.

## 4 METHODOLOGY

### 4.1 Participants

In this study, the target population to which the researcher intended to generalize the findings was all the final year pre-service teachers in the thirty-eight Colleges of Education in Ghana. Purposeful sampling was used to ensure that the final years are chosen because they are the ones who were expected to have completed both the theoretical and practical aspects of their training and therefore they were the group that had the desired information and for whom the questionnaire items were highly salient. (Gall et al, 2003). Drawing a small sample from the target population saves time and money; therefore three Colleges of Education out of the thirty-eight (38) were involved in the study. A total of three hundred (300) third year pre-service teachers formed the sample size of the study, however; only two hundred (200) questionnaires were retrieved.

Out of the 200 respondent who participated in the study, 198 of them indicated their gender. The result indicates that, 77 males and 121 females representing 38.9% and 61.1%, respectively, took part in the study.

I was interested in the age distribution of the respondents, therefore, all the respondents were asked to indicate their year of birth. Out of the 200 respondents who took part of the study, only 185 willingly indicated their year of birth. The maximum year of birth recorded for all the respondents was 1990 and the minimum was 1978 with ( $M=1986.88$ ,  $SD= 2.10$ ) which shows that the final year pre-service teachers are between the ages of 21 and 33 with average age of (24.12).

## 4.2 Sampling

According to Gall et al (2003), target population can represent a large group scattered over a wide geographical area or a small group concentrated in a single area. In the case of this study, the target population included all the thirty-eight (38) Colleges of Education scattered in all the nine regions in Ghana. Therefore, on the premises of easy access and the nature of the target population, the researcher found it convenient to draw the samples from an accessible population of two regions out of the nine. Also, during the pilot study, the researcher found out that most of the final year pre-service teachers were on out-segment teaching practice programme and therefore familiarity to the regions was very important. Hence, two regions i.e. Ashanti and Central regions were purposively selected from nine regions. Then, one College of Education within each region was then selected randomly in order to obtain good population validity. This gave all the Colleges of Education in each region an equal chance of being selected.

Therefore, the two colleges of Education were selected using simple random sampling technique called the lottery method. Thus, each of the names of the Colleges of Education in each region were written on a piece of paper and thoroughly mixed in a cup. Somebody was asked to pick one piece of paper from them. After each pick the content of the cup was re-mixed thoroughly for the procedure to be repeated for the other one region. As a result, one college from each of the two major regions, thus Ashanti and Central regions was chosen randomly for the study consisting of two mixed colleges. The procedure was repeated to select one Women College of Education to form the third college out of a list consisting of Women's Colleges of Education in the two regions because the researcher intended to find out purely female perspective on the

concept of inclusive education.

Having selected the three colleges of Education by simple random sampling, the researcher requested for sampling frame from each college. According to Gall et al (2003), sampling frame typically is a published list that will help the researcher to identify all the population of interests. In this study, the sampling frame was the complete and most recent Primary/ Junior High Schools where all the final years in each of the colleges were posted to do their teaching practice, which was available.

### **4.3 Research Design**

Research design enables the researcher to meet the purpose of the study. It involves detail description of the procedure the researcher will use to find answers to the research questions. The researcher adopted both descriptive study (quantitative research design) and case study (qualitative research design) for the study. Both designs were appropriate because the study was intended to create a detailed description of the phenomenon. Hence, the study collected mixed forms of data involving quantitative survey data and qualitative open-ended and closed ended data. It has advantages such as: involving both depth (qualitative) and breathe (quantitative), conquering the shortcomings of both the quantitative and qualitative methods and also boosting the validity of the research findings (Gall et al., 2003). For instance the respondents might guess the options or try to choose socially acceptable options but the open-ended and closed ended questions will explore further to find out the extent of pre-service teachers knowledge about the real issues in the study (Patton, 2002).

#### **4.4 Research Instruments**

The data for this study was obtained through the use of questionnaires and open-ended interviews questions. The questionnaires together with structured, semi-structured, and unstructured interview questions were intended to collect both theoretical and practical information from the respondents as far as inclusive education and their preparedness for its implementation are concerned.

The questions to collect the data for this study were grouped under five parts. Part A was about the personal data of the respondents such as age and gender. Part B dealt with the extent of teacher's knowledge about inclusive education. Part C was to find out pre-service teachers knowledge of special educational needs and disabilities. Part D was also to explore the instructional strategies pre-service teachers prefer to use to create an inclusive classroom. And finally, Part E was intended to find out from the pre-service teachers their views on the challenges associated with the inclusion of students with Special Education Needs and disabilities in the regular schools.

Likert scale, an example of graphic rating scale, which is appropriate in the measurement of attitude and perceptions, was used for Part B. The likert scale consisted of a set of items in which respondents were presented with statements and were asked to indicate the extent of their agreement with the statements. In this study, I used five-point scale ranging from "strongly disagree" to "strongly agree" (Gall et al, 2003). I adopted the likert scale because it was easy to construct and also very good in assessing opinions, attitudes and perceptions. Although, the five-point scale which was an odd number response scale has the disadvantage of forcing respondents to select responses in the middle of the scale i.e. undecided/unsure/not sure/no opinion option, however,

according to Gall et al (2003), a good method of dealing with respondents who lack familiarity with a topic/concept is to include “no opinion” option as one of the response alternatives for each attitude or statement item. Also, according to them, respondents with little or no information about the topic/concept might express an opinion in order to conceal their ignorance, or because they feel social pressure to express a particular opinion. This was the more reason why the researcher also used structured, semi-structured, and unstructured interview questions to delve into the respondents’ opinions, attitudes and perceptions.

Part C consisted of a mixture of structured, unstructured and, open-ended, rating and dichotomous questions requiring various response modes such as Yes or No responses and fill-in response modes asking the respondents to supply rather than choose a response. Part D was to collect ranked data requiring the respondents to rank statements in order of preference. They are a modified set of twenty-two (22) instructional strategies used by Gyimah (2010) in a study of an examination of teacher’s use of instructional strategies in primary schools in Ghana: implication to inclusive education. The researcher modified the instrument by changing all the ‘I’s to ‘To’s in the statements and the respondents were asked to rank the instructional strategies in order of preference instead of three point likert scale used by Gyimah (2010). Part E was made up of qualitative, open-ended, unstructured interview questions requiring unstructured response about how individual respondents view the challenges associated with the inclusion of students with special education needs and disabilities in regular schools in Ghana.

#### **4.5 Validity and Reliability of the Research Instruments**

Gall et al (2003) advised that it is extremely relevant that questionnaire and interview designs satisfy the same requirements of validity and reliability applicable to other data-collection measures in educational research. This is highly recommended, especially, when the researcher is not using already existing instruments but designs his/her own instruments. There is no numerical way to express content validity, however, Gall et al (2003), indicated that content validity can be determined by panel of experts in the field who can judge its adequacy. Therefore, the researcher ensured content validity of the research instruments by asking some colleagues as well as experts such as my supervisor to review and judge the content validity of the research instruments. The questionnaires were also piloted tested to ensure their validity and reliability.

Reliability of research instrument is the consistency of their measurement. For the purpose of this study, the researcher estimated internal consistency of the instruments by using Cronbach's coefficient alpha. The purpose of estimating the internal consistency was to assess the extent to which scores on certain items of the instruments correlate with scores of other items of the instruments. Gall et al (2003), recommends that lower level item reliability is acceptable when the data are to be analysed and reported at the group level than at the individual respondents level.

#### **4.6 Pilot-Testing of Research Instruments**

Gall et al (2003), admonished that in developing rating scale such as likert scale for questionnaire study, the researcher should pilot-test it in order to check its reliability, validity and to find out if respondents have sufficient knowledge and understanding to

express meaningful opinion about the topics, otherwise their responses will be questionable. The questionnaires were developed by the researcher himself and therefore there was the need to pilot test them to establish their reliability and validity. The pilot test was done on 29<sup>th</sup> of November, 2010 in Wesley College of Education. The researcher chose that college because of its closeness to where he was doing my internship. Twenty questionnaires were given out but only twelve were retrieved the following day.

#### **4.7 Analysis of Pilot Test**

In this study, I used Cronbach's coefficient alpha which is a general form of the K-R 20 formula to test for the internal consistency. I chose that method because the questionnaires involved a lot of structured, semi-structured and unstructured open-ended questions that have several possible answers. According to Gliem & Gliem (2003), Cronbach's alpha is a test reliability technique that requires only a single test administration to provide a unique estimate of the reliability for a given test. They noted that Cronbach's alpha reliability coefficient normally ranges between 0 and 1 and the closer the Cronbach's alpha coefficient is to 1.0 the greater the internal consistency of the items. They cited George & Mallery (2003) rules of thumb for Cronbach's alpha values as “ $\alpha > .9$  – Excellent,  $\alpha > .8$  – Good,  $\alpha > .7$  – Acceptable,  $\alpha > .6$  – Questionable,  $\alpha > .5$  – Poor, and  $\alpha < .5$  – Unacceptable”. The Cronbach's alpha for the pilot study was 0.534 which according to the rules of thumb by George and Mallery (2003) was poor.

Therefore, the researcher saw the need to make some changes to both the quantitative questionnaires and qualitative open-ended interview questions to improve upon their clarity and make them unambiguous. I reduced the length of some of the questionnaires to keep them as short as possible. Also after continuous checking and rechecking of the

questionnaire items to the criterion and research questions, some of the items on the questionnaires that were not directly related to the research questions and criterion questions were removed in order to get good questionnaire items. During the pilot-testing, the researcher realised that, the open-ended questionnaires were too many and therefore, it took the respondents too much time to complete it. Some of the respondents also left some of the open-ended questionnaires unanswered.

Therefore, the researcher refined the questionnaires and increased the closed ended questionnaires. Upon the changes made after the pilot testing, Cronbach's alpha was again used to test the internal consistency for the questionnaire items. All the items on the likert scale were intended to measure the extent of pre-service teachers knowledge about the concept of inclusive education, six of them were negatively worded to prevent response bias, therefore they were reversed (questions: 1, 4, 6, 8, 9, 10, 15, 21 and 22) and their Cronbach's alpha was found to be 0.60. The Cronbach's alpha for the questionnaire items on pre-service teachers preference of instructional or pedagogical strategies teachers prefer to use to create an inclusive classroom was 0.91. The Cronbach's alpha for all the questionnaire items is 0.87.

#### **4.8 Ethical Issues and Data Collection Procedure**

As part of fulfilling ethical issues relating to research of this kind, the researcher collected a letter of introduction from the Regional Director of Ghana Education Service, Kumasi, Ashanti Region of Ghana. Letters of introduction/ permission and lists of Primary/ Junior High Schools in which the final years were doing their final teaching practice were sought from the Principals of the Colleges and the lecturers. The researcher selected the Primary/Junior High Schools by using random sampling

technique and all the final year mentees in the selected schools formed part of the sample. On reaching the schools, permissions were also sought from the Head teachers and mentors in the schools. I created a good rapport so as to have the confidence of the respondents to respond to the questionnaire without any fear. I gave the questionnaire personally to the respondents and four days was given to the respondents to complete them. This gave them enough time for them to think through and complete the questionnaire and to avoid any undue pressure on the participants. Also, one respondent in each of the school was appointed to collect the completed questionnaire and make it available for the researcher.

#### 4.9 Analysis of Return Rate

Out of the three hundred (300) questionnaires that were assigned to three hundred (300) pre-service teachers in the three out of the thirty-eight (38) Colleges of Education in the country, two hundred (200) were received which gives the total return rate of 66.7%.

This has been summarized in table 2.

Table 2

*Return Rates for Pre-Service Teachers from the Selected Colleges of Education*

College	Questionnaires Administered	Questionnaires Retrieved	% Returned
Ola College of Education (Females)	100	88	88%
Akrokerri College of Education (mixed)	100	48	48%
Fosu College of Education (Mixed)	100	64	64%
Total	300	200	66.7%

Source: Field data, January, 2011.

#### **4.10 Data Analysis**

Part A which collected personal data was analysed using simple age and gender distribution, frequencies and percentages. Part B was analysed quantitatively and statistically using Statistical Product for Solutions and Suggestion (SPSS) software for describing each variable by analysing the percentage of responses of each variable using tables. In order to facilitate clear understanding of the analysis of the data, responses of 'strongly agree' and 'agree' were interpreted as 'agree', while those of 'strongly disagree' and 'disagree' were interpreted as 'disagree' for all the questionnaire items on the likert scale. For section D, the ranked order of preference of the twenty-two (22) instructional strategies by the respondents was analysed using frequencies and percentages. For parts C and E which consisted of mixture of structured and unstructured open-ended questions and which attracted several responses, the researcher scanned through the responses and looked for common themes. The major groups of responses under each variable were coded, classified, given values and labels and entered into SPSS for each respondent. Simple percentage and frequency distribution tables were used to analyse the data for some of the questionnaire items. Comparative analysis of the results were made between and within the three Colleges of Education to find out if there is differences in the way teachers are prepared in terms of knowledge acquisition.

## **5 RESULTS**

### **5.1 Introduction**

This chapter fundamentally deals with the analysis of both the quantitative and qualitative data that were collected from the final year pre-service teachers of the three (3) Colleges of Education that took part in the study. The analysis of the several parts of the questionnaire items have been lettered B, C, D and E. Part B, deals with the analysis of the pre-service teachers' knowledge of the concept of inclusive education, part C deals with the analysis of pre-service teachers' knowledge about special educational needs and pupils with disabilities, part D deals with the analysis of instructional or pedagogical strategies teachers prefer to use to create an inclusive classroom and part E deals with the analysis of pre-service teachers' views on the challenges associated with the inclusion of students with special educational needs/disabilities in the regular classroom.

### **5.2 Part B: Analysis of Pre-service Teachers' Knowledge about the Concept of Inclusive Education**

The questionnaire items on this part were intended to find answers to the research question one (1), thus, the extent to which final year pre-service teachers are knowledgeable of the concept of inclusive education. The first question on this part was a dichotomous question requiring 'Yes' or 'No' answer. It was to find out if participants have been introduced to the Inclusive Education.

The result summarised in table 3 indicates that, out of the 200 respondents who took part in the study, only 165 responded to this question and of that number 89.7% indicated 'Yes' while only 10.3% indicated 'No'.

Table 3  
*Responses on Introduction to Inclusive Education*

<b>Response</b>	<b>Frequency</b>	<b>Percent (%)</b>
Yes	148	89.7
No	17	10.3
<b>Total</b>	<b>165</b>	<b>100.0</b>

Source: Field work, January 2011.

I was interested in finding out if there were differences in the number of male and female respondents who responded ‘Yes’ or ‘No’ to the introduction to inclusive education. Therefore, chi-square test for independence was employed to explore their relationship. Table 4 shows that 98.6% of male respondents indicated that they have been introduced to inclusive education while that of the female respondents is 83.0 %.

Table 4  
*Relationship between Male and Female Respondents on Introduction to Inclusive Education*

<b>Variable</b>	<b>Introduction to Inclusive Education</b>	
	<b>Yes</b>	<b>No</b>
Male	68	1
Percent (%) within Gender	98.6	1.4
Female	78	16
Percent (%) within Gender	83.0	17.0

Source: Chi-square test of independence

A further Pearson chi-square test revealed the corrected value of 10.33 with an associated  $p=.00$ , which means that there is significant difference between the proportion of male respondents who have been introduced to inclusive education and that of the females. Thus, more males believe they have been introduced to inclusive education concept than females.

Also under Part B were twenty-four (24) questionnaire items on five-point likert scale, all aimed to find out the extent to which pre-service teachers are knowledgeable about the concept of inclusive education. In order to facilitate clear understanding of the analysis of the data, responses of ‘strongly agree’ and ‘agree’ were interpreted as

'agree', while those of 'strongly disagree' and 'disagree' were interpreted as 'disagree' and as stated earlier some negatively worded items were reversed.

The summary of items that were favourably scored by respondents (see table 5) clearly indicates that 55.8% of respondents agreed that inclusion is not only about including students with disabilities while 36.7% disagreed. There were 84% respondents who agreed that in inclusive classroom or school, everyone is made to feel welcome, regardless of their disabilities while 10.5% disagreed. Also, 71.9% of them agreed that an inclusion seeks to remove all forms of barrier to learning and participation for all students while 16.5% disagreed. Furthermore, 77.9% agreed that inclusion encourages students to learn collaboratively and 9.5% disagreed. And more than 70% of respondents agreed that inclusion requires that there is cooperation among teachers, parents and other professionals while a little bit more than 15% disagreed etc.

However, table 6 indicates that majority of respondents (66.3%) view differences among students in inclusive settings as a problem while 18.1% did not see it that way. There were 47.3% respondents who believed that all students should be given the same tasks during teaching in an inclusive setting while a minority of 43.2% disagreed. And majority of 33.7% of them indicated that inclusive teaching uses one-size fits all curriculum while 32.2% disagreed. Also, majority of 47.7% disagreed that expectation must be high for academically brilliant students while 36.7% agreed to that. Moreover, majority of 58.8% of them indicated that it is difficult for children who are gifted to learn with children with severe mental retardation while only 27.2% disagreed. Furthermore, majority of 53.8% disagreed that intelligent students should be made to feel good about themselves while 30.7% of them disagreed. Lastly, 43.7% of the respondents did not see consultation with student as an important aspect of an inclusive classroom.

Table 6  
*Analysis of Items on Likert Scale Scored Unfavourably by Respondents*

Statements	Agree		Disagree	
	Frequency	(%)	Frequency	(%)
Inclusion requires that differences among students are viewed as problems that must be overcome.	36	18.1	132	66.3
Inclusive teaching means that all students should be given the same task during teaching.	86	43.2	94	47.3
Inclusive teaching uses one-size-fits all curriculum.	64	32.2	67	33.7
In inclusive classroom, expectations are high for the academically brilliant students.	73	36.7	95	47.7
Inclusive classroom makes it difficult for children who are gifted to learn with children who have severe mental retardation.	54	27.2	117	58.8
In inclusive schools, the intelligent students are made to feel good about themselves.	61	30.7	107	53.8
To create an inclusive classroom, teachers have to consult students in order to make classroom rules.	85	42.7	87	43.7

Source: Field Data, January, 2011.

Nevertheless, when all the variables on the likert scale were computed into a single variable, and the total scores for each subject were calculated and mean variable analysis was employed to determine whether all the respondents possess enough knowledge about the concept of inclusive education or not. The result shows a mean score of (3.40) with the lower range (2.40) and the higher range (4.33) both scoring 0.5% each. Any score below the mean were regarded as lower knowledge about the concept of inclusive education and any score above the mean were regarded as high knowledge about the concept of inclusive education. The result indicated 53.0% of respondent's individual means were above the mean score. Therefore, respondents possess high knowledge on the concepts of inclusive education.

An independent-sample t-test was employed to compare the extent of the knowledge of the concept of inclusive education for males and females. Table 7 shows that there is a significant difference in the mean scores for males ( $M=3.51$ ,  $SD=.31$ ) and females [ $M=3.30$ ,  $SD=.40$ ;  $t(185.91) = 4.30$ ,  $p=.00$ ], with the males scoring higher mean than the females.

Table 7  
*Means of Knowledge about Inclusive Education for both Male and Female respondents*

<b>Variable</b>	<b>Gender</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>t</b>	<b>df</b>	<b>p</b>
Knowledge about IE	Male	77	3.51	.31	4.30	185.91	.00
	Female	120	3.30	.40			

Source: Independent-sample t-test

There were three (3) Colleges of Education involved in the study; therefore, I was also interested in knowing the differences among the colleges on the knowledge of the concept of inclusive education. Hence, a one-way between-group analysis of variance was conducted to explore the differences in the knowledge of the concept of inclusive education among the three (3) Colleges of Education that took part in the study.

Table 8 shows that there was a statistically significant difference at the  $p < .05$  level on the knowledge of the concept of inclusive education for the three Colleges of Education [ $F(2, 196) = 7.60, p = .00$ ]. Post-hoc comparisons using the Turkey HSD test indicated that the mean score for Ola College of Education ( $M = 3.30, SD = .43$ ) was significantly different from Foso College of Education ( $M = 3.52, SD = .34$ ) and Akrokerri College of Education ( $M = 3.43, SD = .30$ ). However, Akrokerri College of Education did not differ significantly from Foso College of Education.

Table 8  
*Differences Knowledge about IE among the Three (3) Colleges of Education*

<b>Variable</b>	<b>Colleges</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>df</b>	<b>F</b>	<b>p</b>
Knowledge about IE	Ola	87	3.30	.43	2	7.62	.00
	Foso	48	3.52	.34			
	Akrokerri	64	3.43	.30			
<b>Total</b>		<b>199</b>	<b>3.40</b>	<b>.40</b>			

Source: One-way between-groups ANOVA with post-hoc tests

### 5.3 Part C: Analysis of Pre-Service Teachers' Knowledge about Special Educational Needs and Pupils with Disabilities

The questions on this part were intended to find out the extent of pre-service knowledge about special educational needs and pupils with disabilities. The first question was to find out from respondent what they understood by special educational needs. The result indicates that out of the 200 respondents, only 183 responded to the questionnaire item and three (3) major themes came out of the various responses provided by the respondents with ( $M=1.89$ ,  $SD=.37$ ).

Table 9 shows that 85.2% of the respondents understood the terms 'special educational needs' to mean, a type education given to pupils with special educational needs. And 13.1% of them indicated that, they are students with learning difficulties and disability. While 1.6% indicated that they are special facilities and teaching and learning materials.

Table 9  
*Responses to the Meaning of Special Educational Needs*

<b>Meaning of SEN</b>	<b>Frequency</b>	<b>Percent (%)</b>
A type of education given to SEN	156	85.2
Students with learning difficulties and disabilities	24	13.1
Special facilities and TLMs	3	1.6
<b>Total</b>	<b>183</b>	<b>100.0</b>

Source: Field Data, January, 2011.

The second question on part C was to find out if final year pre-service teachers have knowledge of the different special educational needs that can be found in the mainstream classroom. Although, they could not define SENs, however, respondents from all the Colleges of Education were able to mention different types of SENs that can be found in mainstream classroom. The Summary of result presented in table 10 indicates that seven (7) SENs were mentioned. Out of the seven (7), visually impaired

(56.5%), was the most mentioned type of SENs followed by hearing impaired (52.5%), intellectually disabled (33.5%), learning disabled (32.0%), physically disabled (20.0%), speech and language problems (17.0%), gifted and talented (16.5%) and finally, behavioural and emotional problems having the same score of 1.0%.

Table 10

*Frequency Distribution of the Mentioned SENs in Mainstream Classroom*

<b>SEN that can be found in Mainstream classroom</b>	<b><i>N</i></b>	<b>Frequency</b>	<b>Percent (%)</b>	<b>Mean</b>	<b>Standard Deviation</b>
Visually impaired	200	113	56.5	.56	.50
Hearing impaired	200	105	52.5	.53	.50
Intellectually disabled	200	67	33.5	.33	.47
Learning disabled	200	64	32.0	.32	.47
Physically disabled	200	40	20.0	.20	.40
Speech and language	200	34	17.0	.17	.38
Gifted and talented	200	33	16.5	.17	.37
Behavioural problems	200	2	1.0	.01	.10
Emotional problems	200	2	1.0	.01	.10

**Source:** Field Data, January, 2011.

To thoroughly assess the pre-service knowledge about SENs, respondents were asked to indicate whether they encountered any SENs in their last teaching practice. The result indicates that 95.5% participants responded to the variable with ( $M=1.26$ ,  $SD= .44$ ). Table 11 shows that out of the 95.5% respondents, 71.0% of them indicated ‘Yes’ and 24.5% indicated ‘No’ to the variable. Hence, 71.0% of the respondents encountered at least one or more children with SENs in their last teaching practice.

Table 11  
*Frequency Distribution on Encountered SENs in the Last Teaching Practice*

<b>Did You Encounter SEN in Last Teaching Practice?</b>	<b>Frequency</b>	<b>Percent (%)</b>
Yes	142	71.0
No	49	24.5
<b>Total</b>	<b>191</b>	<b>95.5</b>

Source: Field Data, January, 2011.

The respondent were further probed to mention the SENs they encountered/identified in their last teaching practice. Simple frequency and percentage distribution were employed and the results summarized in table 12 indicates that majority 27.5% participants encountered various types of learning disabilities, follow by visual impairment 23.0%, hearing impairment 10.5%, intellectual disabilities 10.5%, speech and language disorders 9.5%, gifted and talented 4.5% and physical disabilities 1.5%.

Table 12  
*Frequency Distribution on Encountered SEN in Teaching Practice*

<b>Identified SEN</b>	<b>Frequency</b>	<b>Percent (%)</b>
Learning disabled	55	27.5
Visually impaired	46	23.0
Hearing impaired	21	10.5
Intellectually disabled	20	10.0
Speech and language	19	9.5
Gifted and talented	9	4.5
Behavioural problems	0	0
Emotional problems	0	0
<b>Total</b>	<b>173</b>	<b>86.5</b>

Source: Field Data, January, 2011.

The researcher was also interested in finding out if respondents provided support for those children identified with SENs in their last teaching practice. The result shows that Out of the 200 participants, 147 of them responded to the variable with the (M=1.36, SD= .48). Table 13 indicates that out of the 147, majority of 63.9% indicated 'Yes' and 36.1% responded 'No' to the variable.

Table 13  
*Frequency Distribution on Opportunity to Support SEN Children*

<b>Opportunity to Support SEN</b>	<b>Frequency</b>	<b>Percent (%)</b>
Yes	94	63.9
No	53	36.1
<b>Total</b>	<b>147</b>	<b>100.0</b>

Source: Field Data, January, 2011.

The researcher further probed the respondents who indicated that they provided support for those children they identified with SENs to described how they supported them. The result shows that only 91 respondents were able to describe the kind of support they provided. Table 14 which presents the summary of the kind of support provided by respondent's shows that out of the 91 respondents who provided some kind of support, majority of 36.3% arranged the classroom to encourage participation for those children with visual and hearing impairment. Followed by provision of individual attention to those children who needed help 17.6%, 11.0% of the respondents selected tasks that children with SEN/disabilities can do.

According to the result 7.7% of respondents approached consultants for advice when they did not know how to make all children learn, 6.6% of them Selected instructional materials that made it possible for all children to learn, 4.4% of them allowed children with SENs and disabilities to work at different activities when assignment was given, 3.3% of them also allowed children with SENs to engage in certain activities elsewhere in the classroom and children who have difficulties writing the chance to answer question by saying it orally or verbally, 2.2% of them ensured that questions are fairly and evenly distributed to allow children to contribute to lessons and also gave sufficient time to all children to complete tests and assignments.

And only 1.1% of the respondents moved to a new section or unit when all children have understood and can perform what they have learned, gave sufficient time to all

children to practice what they learn, presented tasks in bits to allow children to learn efficiently, varied the pace to help the children to learn as well as ensured that the classroom environment is comfortable for all children.

Table 14  
*Frequency Distribution on the Description of Support Provided*

How Support was Provided	Frequency	(%)
Tried to arrange classroom to encourage participation.	33	36.3
Gave individual attention to children who needed help.	16	17.6
Selected learning tasks that children with special education needs and disabilities can do.	10	11.0
Approached consultants for advice when they did not know how to make all children learn	7	7.7
Selected instructional materials that make it possible for all children to learn.	6	6.6
Allowed children with Special Education Needs and disabilities work at different activities when assignment was given.	4	4.4
Allowed children who have difficulties writing the chance to answer questions by saying it orally or verbally	3	3.3
Allowed children with Special Education Needs to engage in certain activities elsewhere in the classroom.	3	3.3
Ensured that questions are fairly and evenly distributed to allow children to contribute to lessons.	2	2.2
Gave sufficient time to all children to complete tests and assignments.	2	2.2
Gave sufficient time to all children to practice what they learn.	1	1.1
Presented tasks in bits to allow children to learn efficiently.	1	1.1
Varied the pace to help the children to learn.	1	1.1
Moved to a new section or unit when all children have understood and can perform what they have learned.	1	1.1
Ensured that the classroom environment is comfortable for all children.	1	1.1
Total	91	100.0

Source: Field Data, January, 2011.

Having found out the extent of final year pre-service teachers knowledge on inclusive education and special educational needs/disabilities, the researcher then wanted to know from the respondents about their preparedness to teach children with SENs. The result indicates that 198 participants responded to the variable with the ( $M=2.34$ ,  $SD=.98$ ).

The summary of responses on table 15 shows that a majority of 37.9% of the respondents indicated that they are somehow prepared to teach children with SENs in the mainstream classroom follow by 25.3% of them who indicated that they are not prepared and 21.7% of the respondents who indicated that they are highly prepared to teach. Minority of 15.2% of the respondents indicated that they are yet to think about it. In order to facilitate clear understanding of the analysis of the data, the researcher interpreted responses of “not prepared” and “yet to think about it” as not prepared to teach children with SENs in the mainstream classroom. Therefore, a majority of 40.5% of the respondent felt they are not prepared to teach children with SENs in the mainstream classroom.

Table 15  
*Responses on Preparedness to Teach Children with SENs*

<b>Preparedness to teach children with SEN</b>	<b>Frequency</b>	<b>Percent (%)</b>
Somehow prepared	75	37.9
Not prepared	50	25.3
Highly prepared	43	21.7
Yet to think about	30	15.2
<b>Total</b>	<b>198</b>	<b>100.0</b>

Source: Field Data, January, 2011.

The researcher was also interested to find out if there is a significant difference in the respondents' preparedness. Table 16 shows that there was a statistically significant difference at the  $p < .05$  level somewhere among respondents preparedness [ $F(3, 194) = 3.87, p = .01$ ]. Post-hoc comparisons using the Turkey HSD test indicated that the mean score for highly prepared respondents ( $M = 117.74, SD = 56.72$ ) was significantly different from respondents who are not prepared ( $M = 82.34, SD = 58.04$ ). However, the rest of the categories did not differ from each other.

Table 16  
*Differences in Responses on Preparedness to Teach Children with SENs*

<b>Preparedness to teach children with SEN</b>	<b><i>N</i></b>	<b>Mean</b>	<b>Std. Deviation</b>	<b><i>df</i></b>	<b><i>f</i></b>	<b><i>t</i></b>
Highly prepared	43	117.74	56.72			
Somehow prepared	75	108.47	55.28			
Not prepared	50	82.34	58.04	3	3.87	.01
Yet to think about	30	90.13	57.49			
<b>Total</b>	<b>198</b>	<b>101.11</b>	<b>57.85</b>			

Source: Field Data, January, 2011.

#### **5.4 Part D: Analysis of Instructional or Pedagogical Strategies Teachers Prefer to Use to Create an Inclusive Classroom**

Questions on this part were to find out which instructional or pedagogical strategies final year pre-service teachers will prefer to use to create an inclusive classroom. Respondents were asked to rate the instructional strategies using figures 1, 2, 3, 4 ....22 to rank them in order of preference. The instructional strategies rated (1) is the most preferred while (22), is the least preferred. Table 17 shows the list of instructional strategies in order of preference.

Table 17  
*Responses on Pre-Service Teachers' Preference of Instructional Strategies*

<b>Instructional Strategies</b>	<b><i>M</i></b>	<b><i>SD</i></b>
To ensure that the classroom environment is comfortable for all children.	6.41	6.821
To select learning tasks that children with special education needs and disabilities can do.	6.49	6.148
To select instructional materials that makes it possible for all children to learn.	6.57	6.604
To give individual attention to children who need help.	6.71	6.052
To set instructional objective (s) to cover all children including those with Special Education Needs and disabilities.	6.98	6.620
To ensure that questions are fair and evenly distributed to allow children to contribute to lessons.	7.18	6.008
To move to a new section or unit when all children have understood and can perform what they have learned.	7.48	7.780
To try to arrange my classroom to encourage participation.	7.52	6.382
To design individualised education plan (IEP) for children with Special Education Needs and disabilities.	7.62	6.851
To constantly monitor all my children while they do class work.	7.65	6.874
To vary the pace to help the children to learn.	8.13	6.872
To approach consultants for advice when I do not know how to make all children learn	8.13	6.826
To ensure that the classroom is spacious to allow for free movement.	8.18	7.072
To present tasks in bits to allow children to learn efficiently.	8.15	6.685
To give sufficient time to all children to practice what they learn.	8.35	6.586
To ask children to help each other	8.79	7.236
To give sufficient time to all children to complete tests and assignments.	8.96	7.204
To allow children who have difficulties writing the chance to answer questions by saying it orally or verbally	9.12	6.865
To keep daily records of the progress children make in class.	9.41	7.438
To mix up the children when they are performing assignment.	9.58	7.291
To allow children with Special Education Needs to engage in certain activities elsewhere in the classroom.	9.70	7.521
To let children with Special Education Needs and disabilities work at different activities when assignment is given.	9.88	7.322

In order to facilitate clear understanding of the analysis of data, the instructional strategies were grouped under four categories depending on their order of preference, the instructional strategies with the mean values ranging between 6.00 and 6.99 were grouped as the 'most preferred', those with the mean values ranging between 7.00 and 7.99 as 'preferred', those with the mean values between 8.00 and 8.99 as 'somehow

preferred' and the least preferred instructional strategies are those with the mean values between 9.00 and 9.99. Table 18, 19, 20 and 21 show the summary of groupings of the instructional strategies according to their order of preference and clearly indicate that out of the 22 instructional strategies, five of them constituted the most preferred instructional strategies, five of them came second in the order and constituted the preferred instructional strategies, seven of them came third in the order which constituted the somehow preferred instructional strategies, and five of them constituted the least preferred instructional strategies.

Table 18 which shows a list of the mostly preferred instructional strategies indicates that the pre-service final year teachers will mostly prefer to ensure that the classroom environment is comfortable for all children, select learning tasks that children with special education needs and disabilities can do, select instructional materials that makes it possible for all children to learn, give individual attention to children who need help, and set instructional objective (s) to cover all children including those with Special Education Needs and disabilities.

Table 18

*The Most Preferred Instructional Strategies*

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**Instructional Strategies**

To ensure that the classroom environment is comfortable for all children.

To select learning tasks that children with special education needs and disabilities can do.

To select instructional materials that makes it possible for all children to learn.

To give individual attention to children who need help.

To set instructional objective (s) to cover all children including those with Special Education Needs and disabilities.

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Source: Field Data, January, 2011.

Table 19 indicates that the final year pre-service teachers will prefer to ensure that questions are fair and evenly distributed to allow children to contribute to lessons, move to a new section or unit when all children have understood and can perform what they

have learned, try to arrange classroom to encourage participation, design individualised education plan (IEP) for children with Special Education Needs and disabilities and constantly monitor all children while they do class work.

Table 19

*The Preferred Instructional Strategies***Instructional Strategies**

To ensure that questions are fair and evenly distributed to allow children to contribute to lessons.

To move to a new section or unit when all children have understood and can perform what they have learned.

To try to arrange my classroom to encourage participation.

To design individualised education plan (IEP) for children with Special Education Needs and disabilities.

To constantly monitor all my children while they do class work.

Source: Field Data, January, 2011.

The instructional strategies that are somehow preferred by the final year pre-service teachers are summarised in table 20 and it shows that they will somehow like to vary the pace to help the children to learn, approach consultants for advice when they do not know how to make all children learn, ensure that the classroom is spacious to allow for free movement, present tasks in bits to allow children to learn efficiently, give sufficient time to all children to practice what they learn, ask children to help each other and to give sufficient time to all children to complete tests and assignments.

Table 20

*The Instructional Strategies Somehow Preferred***Instructional Strategies**

To vary the pace to help the children to learn.

To approach consultants for advice when I do not know how to make all children learn

To ensure that the classroom is spacious to allow for free movement.

To present tasks in bits to allow children to learn efficiently.

To give sufficient time to all children to practice what they learn.

To ask children to help each other

To give sufficient time to all children to complete tests and assignments.

Source: Field Data, January, 2011.

Table 21 presents the summary of the least preferred instructional strategies. It shows that the pre-service teacher will in the least prefer to allow children who have difficulties writing the chance to answer questions by saying it orally or verbally, keep daily records of the progress children make in class, mix up the children when they are performing assignment, allow children with Special Education Needs to engage in certain activities elsewhere in the classroom and let children with Special Education Needs and disabilities work at different activities when assignment is given.

Table 21

*The Least Preferred Instructional Strategies*

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**Instructional Strategies**

To allow children who have difficulties writing the chance to answer questions by saying it orally or verbally

To keep daily records of the progress children make in class.

To mix up the children when they are performing assignment.

To allow children with Special Education Needs to engage in certain activities elsewhere in the classroom.

To let children with Special Education Needs and disabilities work at different activities when assignment is given.

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Source: Field Data, January, 2011.

### **5.5 Part E: Analysis Pre-service Teachers Views on Challenges Associated With the Inclusion of Students with Special Education Needs/Disabilities in Regular Schools**

One of the research questions for the study was to find out what pre-service teachers think are/will be their main challenges for the inclusion of students with special education needs/disabilities. The result indicates that there were seven (7) major groups of responses to this variable and out of the 200 respondents, only 126 responded to the question. Table 22 shows that out of the 126 pre-service teachers who responded to the question, majority of them (52.4%) viewed lack of quality teacher preparation as a major challenge to the inclusion of students with special needs and disabilities in regular

classrooms. This was followed by inadequate resources and teaching materials, (19.0%), stigmatisation and discrimination (11.9%).

Table 22

*Responses to the Challenges Associated with the Inclusion*

<b>Challenges to Inclusion</b>	<b>Frequency</b>	<b>Percent (%)</b>
Lack of quality teacher preparation	66	52.4
Inadequate resources and teaching materials	24	19.0
Stigmatisation and discrimination	15	11.9
Low self-esteem among disable and SENs	10	7.9
Lack of proper facilities and environment	8	6.3
Lack of cooperation from parents	2	1.6
Lack of consultants and other professionals	1	.8
<b>Total</b>	<b>126</b>	<b>100.0</b>

Source: Field Data, January, 2011.

## 6 DISCUSSION

### 6.1 Major Findings

Naturally, teachers have difficulties dealing with change and inclusion of students with special needs is one of the changes that teachers have been battling with because of the perceived effect it might have on other students as well as teaching and learning process in the classroom. Inclusive education cannot be implemented if teachers antagonize with it. Therefore, teachers' understanding of how inclusive education works, what works within inclusive settings and the conditions for effective inclusive education is very important for its implementation because inclusive education relies on what teachers do in classrooms (Meijer, 2004). This study found out that more than three-quarters pre-service final year teachers indicated that they have been introduced to the concept of IE, however, only half of them demonstrated high knowledge in IE concepts with male scoring higher mean than females. This finding is consistent with a similar study by Opoku-Inkoom (2009) which also found 87.1% of similar respondents affirming that they have been introduced to IE with majority of them demonstrating enough understanding of its principles.

Although, Opoku-Inkoom (2009) describes that all the Colleges of Education in Ghana follow the same curriculum, however, the result of this study indicated two colleges involved in the study demonstrated different level knowledge on the concepts of IE. This might imply that different colleges deliver the curriculum in different ways.

The most important factor in championing inclusive education is equipping all teachers with the professional knowledge and skills to enable them to educate all learners regardless of their individual needs (Watkins, 2003), Teachers' knowledge of SENs is

also extremely important for this task as it will equip teachers with knowledge and skills in the identification, provision of interventional measures and suitable instructional strategies for successful inclusion of students with SENs in the regular classroom. Therefore, teachers and other staffs must have easy access to different training and opportunities to acquire those.

In this study, although only less than a quarter of the respondents could define the term 'SEN', however, the entire respondents were able to mention some of the SENs that can be found in mainstream classroom. More than half of respondents mentioned visual (56.5%) and hearing (52.5%) impairments making them the most mentioned SENs in the study and almost three-quarters of respondents indicated that they encountered SENs in their teaching practice with learning disabled students being the most identified SENs. This finding is in line the most recent study by Sarfo (2011) which also found learning disability as the most dominant disability in Ghanaian mainstream classroom. However, these are in contradiction with a similar study by Opoku-Inkoom (2009) which found visual impairment as the most identified SEN. The study also found out that behavioural and emotional problems were the least mentioned SENs and undoubtedly, were not identified by any of the respondents at all. Similarly, the study by Opoku-Inkoom (2009) also found out that Attention Deficit Hyperactivity Disorder and Emotional Behavioural Disorder were the least indentified SEN. These findings might suggest that the pre-service teachers lack the necessary knowledge and skills to identify these kinds of SENs.

Stainback & Stainback (1984) argue that individual differences exist among students and each and every student has his/her distinctive set of physical, intellectual, and psychological features (cited in McLeskey 2007, p. 60). And the supreme aim of inclusive teachers is to create a classroom where these differing features are valued,

supported and cared for. The teachers focus would be on the strengths and gifts of each person, appreciating diversity among students (Hittie & Peterson 2003). The Watkins (2003) EADSNE's report also stated that the common massive challenge facing teachers in the classroom is the handling of differences or diversity of learners' needs. Therefore, the report argues that the most important requirement at teacher level that can significantly improve classroom practice and assist the implementation of inclusive education are teachers' view of differences in classrooms and their preparedness to respond positively and effectively to those differences. The study found out that, although more than half (55.8%) of respondents appreciate in theory that inclusive classroom is where difference is celebrated, embraced, and valued and the same number view differences as resources to support learning.

However, almost three-quarter of pre-service teachers still view differences among student as problem that must be overcome. Similarly more than half also think that it is difficult for gifted children to learn with those with severe mental retardation. This implies that pre-service teachers view differences as deficits or problems to be overcome and this, according to Purdue et al (2009), is the root cause of all the exclusionary and discriminatory attitudes and make teachers to blame academic failures on children (as Agbenyega 2003 study described) and their families rather than school cultures, policies and teacher instructional practices.

General education curriculum has been defined by Udvari-Solner, Villa & Thousand (2002) as "a standard set of requirements or pieces of knowledge and skills that every student must achieve to successfully complete a grade level". And these set of requirement or pieces of knowledge and skills are generally transferred to all students through traditional approaches such as lectures, single grade-level text books and worksheets (Udvari-Solner et al, 2002; 86) and these are descriptive of teaching and

learning in Ghanaian schools (Agbenyega, 2003). These traditional teaching practices where teachers are active transmitters and students are passive recipient of knowledge cannot produce an inclusive classroom that can meet the differing needs of pupils because they fail to take individual needs into consideration during planning. As a result of these practices, many students fail to learn the curriculum and are referred to special education (Udvari-Solner et al, 2002; 86) and eventually drop out of school (Agbenyega, 2003). For these students, they could not access the curriculum because instructional strategies were not modified to meet their individual needs.

The study found out that slight majority, although less than half of the participants are of the view that inclusive teaching uses one-size-fits-all-curriculum and therefore they should be given the same tasks during teaching and also letting children with SENs and disabilities to work on different activities is one of the least preferred instructional strategies that the pre-service teachers would like to use and only four participants used this strategy as one of the support provided to students they identified as having SENs during their last teaching practice. Similarly, Gyimah's (2010) study also found out that letting children with SEN and disabilities to work on different activities is one of the less frequently use instructional strategy among in service Primary School teachers. These finding suggests that modifying and diversifying curriculum and its method of delivery to meet the needs of individual students is a daunting task for pre-service and in-service teachers in Ghana. Pre-service teachers might not have been equipped enough with differentiated instruction. Udvari-Solner et al further argue that the monotonous and unchanging way of looking at curriculum and its delivery in the mainstream classrooms serves as a hindrance to curriculum access by the many students with differing needs. And this situation is worsened by the increasing inclusion of students with disabilities in regular education.

Conceptually, a very slight majority (43.7%) of the respondents do not see the need in consulting students on matters such as setting clear classroom rules and borders in order to create inclusive classroom. This finding might also suggest that pre-service teacher have little or no idea on collaborative problem solving strategies.

Furthermore, the result of the study indicates the pre-service teacher will mostly preferred to; ensure that the classroom environment is comfortable for all children, select learning tasks that children with special education needs and disabilities can do, select instructional materials that makes it possible for all children to learn, give individual attention to children who need help, and set instructional objective (s) to cover all children including those with Special Education Needs and disabilities. All these strategies require a lot of individualisation in terms of planning, differentiating of instructions and changing environment. However, a study has shown that adaptations that require a lot of changes in materials and instructions were identified by general education teachers as neither desirable nor feasible when teaching students with special educational needs (Schumm & Vaughn 1991 cited in McLeskey 2007).

In addition, one of the instructional approaches identified by several studies as effective within inclusive classroom is heterogeneous grouping (Watkins, 2003). More than half of the respondents also agreed in principle that, students with unequal abilities helping each other does not encourage cheating or copying. This finding, therefore, suggest that pre-service teachers are receptive to that principle of inclusive education. However, mixing up children when they are performing assignment was one of the least preferred instructional strategy by the respondents and was not used as one of the supports they provided to students they identified as having SEN during their teaching practice. Whereas, the Gyimah's (2010) research indicated that in service Primary School teachers sometimes use this strategy.

Research has found out that insufficient time to undertake the responsibilities of students with SENs and disabilities is one of the challenges for inclusion and justifies why teachers are reluctant to include students with SENs and disabilities (Scruggs & Mastropieri 1996 cited in McLeskey 2007). This study also found out that giving sufficient time to all children to practice what they learn and giving sufficient time to all children to complete tests and assignments were two of the instructional strategies somehow preferred by the participants and were used by one and two respondents respectively as strategies to provide support for students they identified as having SENs and disabilities in their last teaching practice. This finding is in line with Gyimah's (2010) study which reported that Primary School teacher only use these two strategies sometimes. This implies that insufficient time still remains a problem for teachers in creating an inclusive classroom.

The study also reveals that, practically, the most used instructional strategies by the participants during the teaching practice were; arranging classroom to encourage participation, giving individual attention to students who needed help, and selecting learning tasks that those with SENs and disabilities can do. Consequently, these strategies were part of the most preferred and preferred instructional strategies indicated by the respondents. Comparatively, the study by Gyimah (2010) indicates that in service primary teachers also most often arrange classroom to encourage participation. However, they only sometime give individual attention to children who need help and less frequently select learning tasks that children with SENs and disabilities can do. On the contrarily, Schumm & Vaughn's (1991) research on teachers' perception of the desirability and feasibility of general classroom adaptations for mainstreamed students concluded that changing physical arrangement of classroom was one of the least desirable instructional adaptation teachers would like to make.

The study further revealed that allowing children with Special Education Needs to engage in certain activities elsewhere in the classroom was one of the least preferred instructional strategies identified by pre-service teachers. Similarly, it was one of the less frequently used instructional strategies identified by Gyimah (2010). This implies that the large class sizes in Ghanaian schools can interfere with teachers' willingness to implement certain inclusive instructional strategies in the mainstream classrooms (Gyimah, 2010).

Analytically, the entire respondents (200) mentioned one or more SENs, but only 142 of them identified some SEN during their teaching practice, and 94 of them indicated that they provided some support for those students they identify as having SENs, however; only 91 of them actually provided some kind of support for their identified SENs students. This means that there is a gradual decline from the number of respondents who mentioned different kinds of SENs that can be found in the mainstream classroom, to the number that were able to identify and eventually provided interventions. This confirms the finding that only a small majority of respondents (37.9%) indicated that they are somehow prepared to teach children with SENs in the mainstream classroom whereas a quarter of them indicated that they are not prepared at all. It is therefore not surprising that more than half (52.4%) of respondents cited lack of quality teacher preparation as one of the challenges facing the inclusion of students with SEN/disabilities in the regular schools in Ghana.

## **6.2 Implications of this Study**

Although, half of pre-service teachers (53.0%) demonstrated enough knowledge in IE, this implies that almost half of the respondents also lack enough knowledge in the concepts and principles of IE. The result of this study also shows that majority of pre-

service teachers (40.5%) still feel they are not fully prepared to teach in an inclusive classroom and moreover, there was a gradual decline from the number of pre-service teachers who mentioned SENs in the mainstream classroom, to the number of them who were able to identify and to the number who provided support. All these findings suggest that more needs to be done in terms of training teachers to support inclusion.

It is therefore imperative that the courses at the Colleges of Education in Ghana should be reformed to include a compulsory inclusive education course for all the final year pre-service teachers in both colleges and the universities. These findings also imply that the few pre-service teachers who understand and agree with most of the concepts of IE, find it difficult or lack the confidence or lack the willingness to put them into practice. This is in agreement with Horne's (1983) conclusion that teachers understand that mainstreaming/ inclusion demands meaningful diversifications in classroom procedures, instructions and curricula, however, many general classroom teachers are reluctant to make (cited in Scruggs & Mastropieri, 1996).

Also the study reveals that pre-service teachers either do not have idea or lack most of the key elements of inclusive education concepts that in my opinion are very crucial for its implementation, such as their view of differences in classrooms and their preparedness to respond positively and effectively to those differences. Meijer's (2004) report argues that handling differences in the classrooms hinges on two important factors; teacher factors and school factors. Teachers' factors include teachers' attitudes towards students with special educational needs and disabilities and it has been deemed as one of the critical teacher factors in creating inclusive schools. The report argues that mainstream teachers' failure to take the responsibility for the education of these students will reject them as integral part of school community.

Another teacher factor that influences teachers' ability to deal with difference in the classroom is the availability of resources such as teaching methods, materials, time, and more importantly knowledge and skill teachers have learned during their training and experience. Especially, more instructional time through the use of educational assistants, different instructional strategies and professional knowledge and skills through consultation teams are vital for successful inclusion of students with SEN (p.9). Therefore, the report argue that successful inclusion of pupils with SEN largely depends on availability of resources in the mainstream classroom, but also on the way teachers differentiate the resources between pupils (p.10).

Lastly, teachers' ability and skills in developing social relationships among pupils with and without SEN and their parents is also another key teacher factor that is crucial for successful special needs education within mainstream settings (p.11). Therefore, there must be deliberate attempt by GES to provide teachers with enough resources and Colleges of Education to equip teachers with enough knowledge and skills about how to make curriculum modifications to meet the needs of individual students and to use an inclusive instructional strategies that have been proven to be effective in teaching students with differing abilities such as partner learning, cooperative group learning, Co-operative teaching, PALS, CPS, Heterogeneous grouping etc.

Also, the course content for teacher education must readjust teachers thinking about the concept of difference from the difference as deficit view to differences as an important component for social systems (Purdue et al, 2009) and equip them with the necessary instructional strategies to handle differences in classrooms. It also implies that teachers will need more practical training not only in knowing the different types of SENs but how to identify them and provide the necessary support. It will be important pre-service teachers get more experience with teaching students with SENs to instil confidence

because many studies have established that attitudes are directly proportional to personal experience (Watkins, 2003) and teachers' positive attitudes towards inclusion has been found to be strongly dependent on their experience with children with SENs (UNESCO, 2009).

Furthermore, this study and that of Opoku-Inkoom (2009) found out that the pre-service teachers have limited knowledge and skills in the identification of SENs such as behavioural and emotional problems and this has a lot of implications for teacher training. Therefore, teacher training programme must be broadened to equip teachers with enough knowledge to identify those special needs that are not clearly recognisable, because, the successful inclusion of student with SENs in the regular classrooms requires an in depth knowledge about all special needs and their characteristics. Without this required knowledge, meaningful inclusion for students with certain special needs cannot be achieved in the regular classrooms in Ghana.

The study also found out that large class size affect teachers' flexibility in the selection of suitable instructional strategies to meet the different needs of students in an inclusive classroom. This implies the Colleges of Education must equip teachers the necessary skills and knowledge in order for them to be able to deal with large class sizes full of students with varied learning abilities, social problems, and different cultural and linguistic backgrounds.

### **6.3 Limitation of this Study and Area of Future Research**

This study looked at the pre-service teachers' preparedness for creating an inclusive classroom and probably the first in its kind that comprehensively studied pre-service

teachers' preparedness by looking at the extent of their knowledge on inclusive education, special educational needs, instructional strategies and their view of challenges to the implementation of inclusive education. Also, only three Colleges of Education in two Regions in Ghana were involved. Therefore, it is highly recommended that such comprehensive study will be replicated for other Colleges of Education in other Regions and also for in-service teachers.

Although, the study used both quantitative and qualitative research questions, however, further research in this direction using both interviews and systematic observation will explore to find out if teachers actually make the necessary adaptations to create an inclusive classroom. Also, further research need to be carried out to find out if the inability of pre-service teachers to put their inclusive ideas into practice is an issue of lack of willingness or confidence.

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## APPENDICES

### Appendix A: Questionnaires for Pre-service Teachers

UNIVERSITY OF JYVÄSKYLÄ  
FINLAND

DEPARTMENT OF  
EDUCATIONAL SCIENCES  
MA in Development and  
International Co-operation



### QUESTIONNAIRE FOR PRE-SERVICE TEACHERS

Dear Sir/Madam,

I am a Masters student of University of Jyväskylä, Finland researching into the topic ‘Pre- service teacher’s preparedness for creating an inclusive classroom,’ to find out; a) the extent to which final year pre-service teachers are knowledgeable of inclusive teaching strategies. b) The extent to which final year pre-service teachers in College Of Education are knowledgeable about the concept of Inclusive Education. The results of the study will be published by the University and an article of the main results made available to the Ghana Education Service. The research is purely for academic purposes; therefore the confidentiality and anonymity of the respondents are assured in all phases of the study. Please, respond to the statements and questions on the basis of your personal opinions. There is no “right” or “wrong” responses.

.....

WILLIAM NKETSIA

**PART A: PERSONAL DATA**

Provide short responses to the following statements or mark (x) where applicable.

1. Gender: Male [ ] Female [ ]
2. Date of Birth: \_\_\_\_\_

**PART B: TEACHERS' KNOWLEDGE ABOUT THE CONCEPT OF INCLUSIVE EDUCATION**

3. Have you been introduced to inclusive education?  
Yes [ ] No [ ]

The statements below relate to your understanding of Inclusive Education. After each statement, **tick** [√] in the appropriate box of scores numbered 1-5 which represent your personal opinion.

- 1 = I Strongly Disagree, 2 = I Disagree, 3 = Undecided,**  
**4 = I Agree, 5 = I Strongly Agree**

STATEMENT	1				
1. Inclusion is only about including students with disabilities.					
2. In inclusive classroom or school, everyone is made to feel welcome, regardless of their disability.					
3. Inclusion seeks to remove all forms of barriers to learning and participation for all students.					
4. Inclusion requires that differences among students are viewed as problems that must be overcome.					
5. Inclusion encourages students to learn collaboratively.					
6. Inclusive teaching means that all students should be given the same task during teaching.					
7. Inclusive teachers understand the different ways in which students respond to the same tasks.					
8. Inclusive teaching uses one-size-fits all curriculum.					

9. Inclusive teaching encourages the participation of only intelligent students.					
10. Effective teaching for students with special educational needs is <b>NOT</b> good for all students.					
11. Inclusion requires that teaching activities are planned with all students in mind.					
12. In inclusive classroom high value is placed on students who have made progress in their performance.					
13. In inclusive classroom, expectations are high for the academically brilliant students.					
14. In inclusive classroom good students are encouraged to help students with disability and Special Education Needs.					
15. Inclusive classroom makes it difficult for children who are gifted to learn with children who have severe mental retardation.					
16. Inclusive classroom is where difference is celebrated, embraced, and valued.					
17. Inclusive schools build on the differences among students in ways that value everyone equally.					
18. In inclusive schools, the intelligent students are made to feel good about themselves.					
19. To create an inclusive classroom, teachers have to consult students in order to make classroom rules.					
20. In inclusive classroom, differences between students are viewed as resources to support learning.					
21. Students with unequal abilities helping each other in a classroom amount to cheating.					
22. Class grouping consisting of intelligent and unintelligent students will encourage copying.					
23. Inclusion requires that teachers and parents work together.					
24. Inclusion requires that there is co-operation among teachers and other professionals.					

**PART C: PRE-SERVICE TEACHERS' KNOWLEDGE ABOUT SPECIAL EDUCATIONAL NEEDS AND PUPILS WITH DISABILITIES**

3. What do you understand by the term 'Special Educational Needs'?

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4. Mention some of the special educational needs that can be found in mainstream classroom.

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5. During your last teaching practice, did you encounter any child with special educational needs? Yes [ ] No [ ]

6. What special educational needs did you identify in your last teaching practice?

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7. Did you have an opportunity to support any of them? Yes [ ] No [ ]

8. If your answer to question 7 is yes, how did you support them?

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9. How well prepared are you to teach students with special educational needs?

Highly prepared [ ] Somehow prepared [ ] Not prepared [ ] yet to think about it [ ]

**PART D: INSTRUCTIONAL OR PEDAGOGICAL STRATEGIES TEACHERS**

**PREFER TO USE TO CREATE AN INCLUSIVE CLASSROOM.**

In teaching in inclusive setting, there are various teaching strategies which teachers can use. Below are 22 of the strategies. Please using the figures 1, 2, 3, 4... 22 rank them in order of preference. The one rated 1 is the most preferred, while 22, is the least preferred.

Instructional strategy	Rank
To move to a new section or unit when all children have understood and can perform what they have learned.	
To select learning tasks that children with special education needs and disabilities can do.	
To allow children with Special Education Needs to engage in certain activities elsewhere in the classroom.	
To constantly monitor all my children while they do class work.	
To design individualised education plan (IEP) for children with Special Education Needs and disabilities.	
To ask children to help each other	
To give individual attention to children who need help.	
To mix up the children when they are performing assignment.	
To try to arrange my classroom to encourage participation.	
To allow children who have difficulties writing the chance to answer questions by saying it orally or verbally	
To ensure that questions are fair and evenly distributed to allow children to contribute to lessons.	
To let children with Special Education Needs and disabilities work at different activities when assignment is given.	
To approach consultants for advice when I do not know how to make all children learn	
To give sufficient time to all children to practice what they learn.	
To set instructional objective (s) to cover all children including those with Special Education Needs and disabilities.	
To present tasks in bits to allow children to learn efficiently.	
To ensure that the classroom is spacious to allow for free movement.	

To vary the pace to help the children to learn.	
To keep daily records of the progress children make in class.	
To give sufficient time to all children to complete tests and assignments.	
To select instructional materials that makes it possible for all children to learn.	
To ensure that the classroom environment is comfortable for all children.	

**PART E: CHALLENGES ASSOCIATED WITH THE INCLUSION OF STUDENTS WITH SPECIAL EDUCATION NEEDS/DISABILITIES IN REGULAR SCHOOLS.**

What do you think are the biggest challenges in relation to the inclusion of students with special education needs in the regular classroom?

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\_\_\_\_\_ Thank you

**Appendix B:***Table 5: Analysis of Items on Likert Scale Scored Favourably by Respondents*

<b>Statements</b>	<b><u>Agree</u></b>		<b><u>Disagree</u></b>	
	<b>Frequency</b>	<b>(%)</b>	<b>Frequency</b>	<b>(%)</b>
Inclusion is only about including students with disabilities.	111	55.8	73	36.7
In inclusive classroom or school, everyone is made to feel welcome, regardless of their disability.	167	84	21	10.5
Inclusion seeks to remove all forms of barriers to learning and participation for all students.	143	71.9	33	16.5
Inclusion encourages students to learn collaboratively.	161	80.9	19	9.5
Inclusive teachers understand the different ways in which students respond to the same tasks.	155	77.9	34	17.1
Inclusive teaching encourages the participation of only intelligent students.	158	79.4	24	12.0
Effective teaching for students with special educational needs is NOT good for all students.	87	43.7	80	40.2
Inclusion requires that teaching activities are planned with all students in mind.	135	67.9	38	19.0
In inclusive classroom high value is placed on students who have made progress in their performance.	60	30.1	110	55.3
In inclusive classroom good students are encouraged to help students with disability and Special Education Needs.	150	75.4	28	14.0
Inclusive classroom is where difference is celebrated, embraced, and valued.	111	55.8	47	23.7
Inclusive schools build on the differences among students in ways that value everyone equally.	131	65.8	40	20.1
In inclusive classroom, differences between students are viewed as resources to support learning.	111	55.8	48	24.1
Students with unequal abilities helping each other in a classroom amount to cheating.	115	57.8	51	25.6
Class grouping consisting of intelligent and unintelligent students will encourage copying.	108	54.3	65	32.7
Inclusion requires that teachers and parents work together.	149	74.9	29	14.5
Inclusion requires that there is co-operation among teachers and other professionals.	151	75.9	32	16.0

Source: Field Data, January, 2011.

## Appendix C: Letter of Introduction from Wesley College of Education for Pilot Study

**WESLEY COLLEGE  
OF EDUCATION**



*Address:*  
P.O. Box 1927  
Kumasi - Ashanti  
Ghana

*Telephone:*  
233 - 51 28541  
233 - 51 22264

*Email:*

WC/ED90

29<sup>th</sup> November, 2010

*Our Ref:*..... *Your Ref:*..... *Date:*.....

THE HEADMASTER  
WESCO DEMONSTRATION JHS 'A'  
KUMASI

**LETTER OF INTRODUCTION**  
**MR. NKETSIA WILLIAM**

The bearer of this letter is Mr. Nketsia William who is pursuing a Master Degree Programme in Finland. He is embarking on a research programme for which he will need the assistance of our student on teaching practice.

We should be grateful if you would allow him to interact with our students.

Your co-operation is much needed in this regard.

.....  
Vice Principal (Academic)  
Wesley College of Education

VERY TRULY  
Yours,  
A.K. OWUSU-ACHEAMPONG  
VICE PRINCIPAL (ACADEMIC)  
for : PRINCIPAL

## Appendix D: Letter of Introduction from the Ashanti Regional Directorate of Education

### GHANA EDUCATION SERVICE

*In case of reply the number and  
Date of this letter should be quoted*

Tel: No. 24781, 24322/6, 24345

Our Ref: 10/20/Vol.8/45

Your Ref:



GOVERNMENT OF GHANA

REGIONAL EDUCATION OFFICE  
P. O. BOX 1906  
KUMASI

Date: October 19, 2010

#### LETTER OF INTRODUCTION MR. NKETSIA WILLIAM

The bearer of this note, Mr. Nketia William, is a student teacher from Jyvaskyla, Finland and he is doing his internship at the Regional Directorate of Education, Ashanti.

We would be most grateful if you could assist him on his research work on Inclusive Education in Ghana.

Counting on your usual co-operation.

  
J.K. ONYIAH  
REGIONAL DIRECTOR, ASH.

THE PRINCIPAL  
FOSO COLLEGE OF EDUCATION  
AKROKERRI COLLEGE OF EDUCATION  
OLA COLLEGE OF EDUCATION

