TEACHERS' ATTITUDES TO INCLUSION IN GHANA

by

EMMANUEL KOFI GYIMAH

SUBMITTED IN ACCORDANCE WITH THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

THE UNIVERSITY OF LEEDS
SCHOOL OF EDUCATION

December 2006

The candidate confirms that the work submitted is his/her own and that appropriate credit has been given where reference has been made to the work of others.

ACKNOWLEDGEMENT

To the only wise and benign God be glory and honour. Out of His abundant mercies, He lifted me up, and gave me life, strength, knowledge, understanding and wisdom to successfully finish this programme. Praise be to His Holy name. Amen.

The Ghana Education Trust Fund (GETFUND) funded this research through the University of Cape Coast. My thanks go to the people and government of Ghana who made my study possible. Thanks to the authorities of University of Cape Coast, Registrar and administrator of the GETFUND scheme, and all the staff of the Education Section of the London Office of the High Commissioner for Ghana.

To my supervisors Professor David A. Sugden and Ms. Sue Pearson, mortal words are inadequate to express the depth of my gratitude to you. Your *in loco parentis* attitude would forever be nurtured and cherished. Your suggestions and recommendations made my research journey and stay in the United Kingdom thrilling and exciting.

I am grateful to my Course Tutor, Dr. Sally Beveridge, the Dean of Leeds University School of Education, Professor John Leach, my research tutor, Mr. Nick Nelson, Professor Emeritus Roger Hegarty, Mrs Margaret Taylor, and all the staff of the School of Education. I also remember with thanks *Education Leeds* who allowed me to attend and to participate in a number of their regional conferences on inclusion.

I have to thank all who helped me to obtain data for the study. I remember the Regional and District Directors of Education, heads of schools and all the 540 teachers in Ghana who accepted to participate in the study.

Lastly, thank you my Lily of the valley. Indeed you were and have been the wife I looked for and had. Every bit of support you threw behind me is deeply acknowledged.

ABSTRACT

The purpose of this study was to survey the attitudes of teachers in Ghana towards children with special educational needs (SEN) and disabilities in relation to the UNESCO (1994) Salamanca Statement on inclusion.

Using random sampling techniques, five hundred and forty trained and untrained mainstream Primary School teachers were selected from three of the ten regions of Ghana to respond to questionnaire items composed of educational placement options and bi-polar emotional reactions. Sixteen of the participants were interviewed using a semi-structured interview guide consisting of scenarios on the assessment results of children with SEN and disabilities.

The results, including chi-square analysis, showed that teachers in Ghana were generally positive towards the inclusion of children with SEN and disabilities. Their greatest concern, however, was with children with sensory disabilities (that is the deaf and blind) and severe to profound intellectual difficulties.

In some of the SEN categories, statistically significant differences were found between teachers in terms of gender, level of teaching experience, knowledge of how to teach children with SEN and disabilities and the location of school in terms region or level of urbanisation. However, no differences were found between teachers in attitudes to inclusion in terms of age, qualification or length of teaching experience. Further, the results showed that irrespective of a teacher's gender, level of experience and/or knowledge of SEN and disabilities, teachers generally experienced anxiety, dissatisfaction and worry in teaching children with SEN and disabilities.

On the basis of the findings, conclusions were drawn that global agendas are subject to national and local interpretation. It therefore sounds logical for research and policies to be context specific. This way, attitudes could be better understood and policies and regulations on SEN fashioned to meet local situations and standards.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF BOXES

REFERENCES AND APPENDICES

CHAPTER ONE

INTRODUCTION

Background to the study

Educating children with special educational needs (SEN) and disabilities in the mainstream has received attention in recent times. It is argued that the mainstream, ordinary or neighbourhood school has the capacity for harnessing potentiality (Farrell and Ainscow, 2002) and removing barriers (Ainscow, 1999). Basically for this reason, delegates representing 92 governments and 25 international organisations met at a conference in Salamanca, Spain, in June 1994 under the sponsorship of United Nations Educational Scientific and Cultural Organisation (UNESCO), to deliberate on and sign a Framework for Action on Special Needs Education and a statement on the rights of the child. This has come to be known as the Salamanca Statement (UNESCO, 1994) underpinning the basis for inclusion.

In paragraph 2 of the statement, there are five major clauses spelling out the key issues in inclusion. These are:

- Every child has a fundamental right to education, and must be given the opportunity to achieve and maintain an acceptable level of learning;
- Every child has unique characteristics, interests, abilities and learning needs;
- Education systems should be designed and educational programmes implemented to take into account the wide diversity of these characteristics and needs;
- Those with special educational needs must have access to regular schools which should accommodate them within a child-centred pedagogy capable of meeting these needs;
- Regular schools with this inclusive orientation are the most effective means of combating discriminatory attitudes, creating welcoming communities, building an inclusive society and achieving education for all; moreover, they provide an effective education to the majority of children and improve the efficiency and ultimately the cost-effectiveness of the entire education system.

Paragraph 2 of the statement therefore places the onus on regular schools to combat discriminatory attitudes and create welcoming communities. The statement was very emphatic on this leaving exception to where there was 'compelling reasons for doing

otherwise' (UNESCO, 1994, p. 9 and 44). There was therefore to be a shift from segregation to inclusion (Lindsay, 2003). UNESCO (2001) re-echoes this with the argument that the paradigm shift implied by the Salamanca Statement was broadly a reform aimed at welcoming diversity amongst all learners. Thus, there was to be an increase in the capacity of local neighbourhood mainstream schools to support the participation and learning of increasingly diverse range of learners.

The problems associated with discrimination are universally acknowledged. Article 2 (1a) of UNICEF Convention on the Rights of the Child categorically indicates:

> States Parties shall respect and ensure the rights set forth in the present Convention to each child within their jurisdiction without discrimination of any kind, irrespective of the child's or his or her parent's or legal guardian's race, colour, sex, language, religion, political or other opinion, national, ethnic or social origin, property, disability, birth or other status (Unicef http://www.unicef.org/crc/crc.htm).

Vislie (2003) sees the Salamanca Statement as a challenge to all exclusionary policies and practices in education. It is a clarion call to encourage all countries to recognise the right of all children to avert discrimination and failure. However, there is considerable controversy surrounding the concept of inclusion as illustrated by Thomas and Glenney (2002):

> Inclusive education is all very well, and it is engendered by the kindest of motives, but there is a central problem: support for it springs from ideology rather than rational inquiry, and it is untested (p. 345).

Some studies find support for inclusion, but others are cautious. Lipsky and Gartner (1996) find that many evaluations of inclusive programme report positive effects on academic, behavioural and social outcomes. Baker, Wang and Walberg (1994) conclude that special needs students educated in regular classes do better academically and socially than students in non-inclusive settings'. The study of Peetsma, Vergeer, Roeleverd and Karsten (2001) focusing on comparing the development of matched pairs of primary-aged pupils in mainstream and special education over periods of 2 and 4 years showed pupils in the mainstream education made more progress in mathematics than in schools for children with learning and behavioural difficulties. Through inclusion, children without special educational needs become aware of 'individual differences and learn to respect these differences' (Deiner, 2005 p. 455). These seem to suggest that inclusion offers better prospects for the development of children with SEN and disabilities than segregation. It is also argued that inclusion is

'cost efficient and cost-effective' for a country (Peters, 2003, pp. 4-5). Considered from the perspective of global economic pressures, Artiles and Dyson (2005, p. 42) coherently argue that separate educational sub-systems for different groups of learners is inefficient and for poorer countries, non-viable. They further intimate that educating all learners in regular schools hold out the promise of both greater efficiency and greater effectiveness.

While the Salamanca initiative may seem lofty on the surface, and has become an international buzz-word, a closer examination at the Statement reveals that there are challenges in pursuing such objective. Warnock (2005), who led the Warnock Report of 1978 to introduce the term 'special educational needs' states 'there, is increasing evidence that the ideal of inclusion... is not working' (p. 35) and that inclusion 'can be carried too far' and that it is composed of 'a simplistic idea' (p. 14). Ainscow (2005) finds it to be the 'big challenge facing school systems throughout the world' (p. 109). Emanuelsson, Haug, Persson (2005) opine that it is easier formulating policies on inclusive education than practising it. Those who see inclusion to be a dilemma say it is contentious and complex (Thomas and Glenny, 2002; Weddell, 2005). Weddell (2005, p. 9) for example, categorically states that 'inclusion is not practicable within the rigidities of the current school system'. We find, for example, that some children with SEN and disabilities have difficulties performing tasks such as writing, reading and doing arithmetic or coping with rigid routines sometimes found in regular education. Arguably, then inclusion appears to be 'vacuous and mistaken' (Wilson, 2000, p. 298), and not 'supported by empirical evidence' (Florian, 1998, p. 107).

A key issue the Salamanca conference did not address which has potential to weaken and undermine the attainment of inclusion is poor teacher attitudes. Though Esposito (http://www.integrativepsychology.org/articles/vol4_artic.htm) found some inconsistencies in research literature on teacher acceptance and implementation of inclusive programmes, a number of studies show that teachers' attitudes are critical in educating the child with SEN in the mainstream (Moltó, 2003; Audit Commission, 2002; Croll, 2001; Bacon and Schultz, 1991). Wilson (2003), Farrell and Ainscow (2002) and Jupp (1992) point out that if a child with SEN is placed in the general education environment, it does not automatically guarantee his or her success. The child can be discriminated against due to negative attitudes since attitudes influence so much of our lives (Farrell, 2004; Audit Commission, 2002; Croll, 2001; Rajecki, 1982). Literature further documents how teachers could hold positive attitudes towards

the concept of inclusion, yet hold negative attitudes when it comes to the implementation of inclusion programmes within their own school (McLesky, Waldron, So, Swanson and Loveland, 2001; Scruggs and Mastropieri, 1996). Sapon-Shevin (1996, p. 268) contends how challenging it is to create a classroom that honours and respects all children and all of their differences. Hence, Moltó's (2003) statement that inclusive education may be taken for granted because it has an international backing is given credence since much is involved in developing and practising inclusion.

Until recently, inclusive education was the preserve of developed countries such as the United Kingdom (UK) (DfEE, 2001) and United States of America (USA) (IDEA, 1997). Frederickson, Osborne and Reed (2004, p. 263) indicate that these countries have formulated policies and laws to back the education of individuals with SEN and disabilities. In the UK, for example, inclusion has played a central role in the Labour government policies since 1997 by increasing wider opportunities for the vulnerable in society. A number of initiatives such as the development of the Special Educational Needs Code of Practice (DfES, 2001) and its Toolkit (DfES, 2001), and the Index for Inclusion (Booth, Ainscow, Black-Hawkins, Vaughan and Shaw, 2000) have served to facilitate and improve the process of inclusion. The index for Inclusion is a set of self-audit materials to support the process of developing inclusive schools. These materials provide guidance to teachers on how to include children with SEN and disabilities. In the Section 7 of the SEN Code of Practice, for example, provisions are made to include:

- a stronger right for children with SEN to be educated at a mainstream school
- working in partnership with parents
- pupil participation
- working in partnership with other agencies (DfES, 2001).

South Africa is one country in Africa that is gradually developing inclusive practice. According to Lomofsky and Lazarus (2001), the South African Constitution, the Bill of Rights, provides for all learners to have a right to basic education. The country has recognised how important it is to adhere to the principles of the UN Convention on the Rights of the Child, the Salamanca Statement, and the UN Standard Rules on the Equalisation of Opportunities for Persons with Disabilities (1993). These principles not only show the importance of valuing the right of every child to education, but also indicate the need to educate the child in the mainstream school and classroom. The country recognised the importance of moving away from the dual system of education (ordinary and special) to a single system of education (Naicker,

2005). The National Commission on Special Education Needs and Training (NCSNET) and the National Committee on Education Support Services (NCESS) (Department of Education, 1997) stress that no learner was to be prevented from participating in inclusive education, regardless of their 'physical, intellectual, social, emotional, language, or other differences' (Department of Education, 1997, p. 66). The old system was characterised by 'separate education separate sector' and was shaped by medical and psychological perspectives (Barton and Oliver, 1992). Barriers to education were located not only within the learner, but also within the centre of learning, within the education system and within the broader social, economic and political context (Department of Education, 1997, p. 14). The South African Schools Act also provides for compulsory education for every child at the age of seven. These have culminated in the introduction of the Outcomes-Based Education (OBE) curriculum flexible enough to cater for diversity.

The examples of the UK and South Africa seem to give evidence that progress towards inclusive practice is possible. As a result of these developments, O'Donoghue and Chalmers (2000) point out that there has been a growing emphasis on inclusion in most countries in recent times, hence making it assume an international dimension. It is however argued whether laws and policies by themselves are sufficient to promote inclusive education since Moltó (2003, p. 312) reports that in Spain teachers' commitment to inclusion was negating when laws on inclusion were imposed on them. Thomas and Loxley (2001, p. 4) also argue that legislation alone is not a sufficient condition for reform if branding practices continue. In other words, something more than legislation of SEN policies is required for the needs of children with SEN to be met in the mainstream and for inclusion to succeed. This, I think, has to do with teachers having positive attitudes to inclusion.

Ghana has been at the forefront in the quest for protecting individual human rights and educating all children of school going age. The country recognises that education is the means to developing human capital, improving economic performance and enhancing individual capacities (Peters, 2003, pp. 4-5). As a member of the United Nations, Ghana was among the first countries to ratify the Convention on the Rights of the Child. Inspired by Article 26 of the United Nations Declaration of Human Rights (UNO 1948, http://www.un.org/Overview/rights.html) that elementary education should be free and compulsory, since independence on March 6, 1957, the country has provided free education to all children of school going age. The Education Act of

1961, the 1992 Constitution, the on-going Educational Reforms that began in 1987, and Vision 2020 attest to this fact. The Education Act of 1961 provided for free and compulsory education for all children of school going age and this included children with SEN and disabilities (Okyere, 2003). In section 2 (1) it states:

> 'Every child who has attained the school going age as determined by the Minister shall attend a course of instruction as laid down by the Minister in a school recognised for the purpose by the Minister'.

Article 25 (1) of the 1992 Constitution defined the national policy framework on education as:

> 'All persons shall have the right to equal educational opportunities and facilities' (Republic of Ghana Constitution, http://www.ghanareview.com/parlia/Gconst5.html).

Furtherance to this, Article 38 (2) states:

> The Government shall within two years after parliament first meets after coming into force of this constitution draw up a programme for the implementation within the following ten years for the provision of a free, compulsory universal basic education'.

The national policy framework was therefore designed to achieve among others free, compulsory universal basic education (f CUBE). A major development that occurred in the year 1987 was the introduction of Education Reforms launched by the Provisional National Defence Council (PNDC), under the chairmanship of Flight Lieutenant Jerry John Rawlings. The Reforms aimed at streamlining the lapses that were observed in the educational system to enhance their development (Ghana Education, http://www.adeanet.org/wgesa/en/doc/ghana/chapter_2.htm). Another initiative has been the Vision 2020 with the sole objective of getting the country to achieve a middle-income status by the year 2020 (OECD/DAC Dialogues, http://www.nssd.net/country/ghana/gh01.htm). Though provision for access, participation and equity was part of the Vision 2020, it did not indicate the procedure to attain them (OECD/DAC Dialogues, http://www.nssd.net/country/ghana/gh0407.htm). For example, there was silence on how children with SEN and disabilities were to be included.

In Ghana, the Ministry of Education Youth and Sports (MoEYS) has the responsibility to formulate and implement educational policies. It plans, supervises, monitors and co-ordinates educational programmes in the country (GES, 2004, p. 1). It performs these functions through the Ghana Education Service (GES) and the Special

Education Division (SpED). GES is responsible for regular schools, while SpED is responsible for special schools. There is no official figure on the number of the population with SEN and disabilities. Gadagbui (1998) reports that as early as 1960 when the Ghana government contracted Sir John Wilson from the United Kingdom to establish the incidence and classification of individuals with disabilities for purposes of planning, 100,000 persons of the 6 million people had disabilities. This makes it imperative for the country to have records on the number of children with SEN for administrative reasons.

The 2003 official data indicated that there are 12,848 primary Schools in the country, with a pupil population of 2,171,585 (GES, 2003, unpublished). It is reported that the Pupil-Teacher Ratios (PTRs) is high. The estimated 2003 PTR (GES, 2003, unpublished) was 1: 33. By implication, teachers in the country have to contend with high pupil-teacher ratios, a trend likely to have effects on how teachers in the country treat children with SEN and disabilities. Only 2,500 of the population of the disabled have had education to the basic level since special schools began some 50 years ago (Avoke, 2001, p. 33). This suggests that many of the children with SEN have no access to support and training in the country. It also means that they are not helped to develop their potentialities for independent living.

There are both public and private special schools for children with intellectual difficulties, traditionally known in the country as the mentally retarded or mentally handicapped. Special schools are there for the deaf, blind and recently those with learning disabilities. The degree of impairments varies from moderate to profound. According to Okyere (2003, p. 15) children with SEN are registered in disability groups. The main categories and forms of provision are shown on Figure 1.1.

Figure 1.1: Categories of exceptionality and forms of provisions in Ghana

Categories	**Forms of Educational provision**
Mental retardation/ severe learning disabilities	Boarding special schools
Physical / motor disabilities	Hospital schools Regular schools
Visual impairment	Boarding special schools Regular schools / resource room
Hearing impairment	Boarding special schools Day special schools

Courtesy from Okyere, B .A and Adams, J. S. (Eds.) (2003*) Introduction to Special; Education: An African Perspective* Adwinsa Publications (GH) Ltd.

The Special Education Division (2003) statistics on SEN enrolment in public and private special schools showed there were twenty-three schools with student population of 3,362 composed of 2,134 boys and 1,228 girls of which 60% of the children were deaf. There were more boys than girls with SEN and disabilities in the schools. There were fourteen schools for the deaf; two for the blind; and seven for those with intellectual difficulties (Casely-Hayford and Lynch, http://imfundo.digitalbrain.com/imfundo/web/papers/sen_phase2/SEN%20PHASE%204.doc). Indications are that the population of the children in special schools had increased to 3,775. The male students continued to outnumber the female (Annex 4: Statistics on Public Special Schools in Ghana http://imfundo.digitalbrain.com/imfundo/web/papers/sen_phase2/Annex%204.doc).

The blue print of the Ministry of Education Policies and Strategic Plans for the Education Sector of Ghana (MEPSPESG) as well as the 1992 Constitution provide for inclusive education but are cautious about its development and implementation. The MEPSPESG states categorically that:

> the curriculum policy takes into account of the need not to make excessive demands on teachers relative to their circumstances and the need not to make excessive demands on the resources of the government or of the parents (p. 50).

MEPSPESG did not elaborate on what was meant by teachers' 'circumstances'. But having lived in the country for some time and taught as a teacher, I understand the circumstances to include teachers' attitudes, material resources, and knowledge and expertise in teaching children with SEN and disabilities. Many studies show that teachers are the pivot to inclusion and their lack of interest or enthusiasm in any policy could have serious repercussions especially on those for whom it is intended (Mushoriwa, 2001; Wisniewski and Gargiulo, 1997). In spite of Constitutional provision for access, participation and equal opportunity for all children including those with SEN and disabilities, SEN provisions made in the country reveal that the government intends to implement the policy or philosophy of inclusive education by stages. It is stated that:

> one region of the country should be identified for an intensive programme for an inclusive education each year for the next 10 years. This would include the selection of 5-10 schools per district for inclusive education using itinerant teachers based at these schools (p. 66)
> (Casely-Hayford and Lynch,http://imfundo.digitalbrain.com/imfundo/web/papers/sen_phase2/SEN%20PHASE%202%20FINAL.doc).

Apart from this, the Special Education Division (SpED) has been entrusted with the 'responsibility and task' (Emanuelsson et al, 2005, p. 133) of implementing inclusive education programmes besides their traditional role of supervising and co-ordinating programmes for persons with SEN and disabilities. It is even seen that the blue print of the Ministry of Education Special Education Policy did not use the term 'inclusion' but rather chose 'integration' as the following reveals.

> The main thrust of the MOE's Special Education Policy is the integration of pupils into the mainstream system. It is also to ensure the provision of adequate resources for special schools.
> (Casely-Hayford and Lynch, Ministry of Education, 2001, p. 14, http://imfundo.digitalbrain.com/imfundo/web/papers/sen_phase2/SEN%20PHASE%204.doc)

But this raises some questions: Why should the Special Education Division alone have the responsibility to implement inclusive education programmes in the country? What implications are there for other agencies which may have a stake in the development of children with SEN and disabilities especially in the mainstream? Probably because of these, Avoke (2001) intimates the government of the country to be rhetorical, apathetic and not committed to inclusion. But in dealing with rhetoric and apathy, Mitchell (2005) recognises in his tenth proposition on inclusive education that commitment to inclusion can be rhetoric for a gap to exist between policy/practice in inclusive education. Mitchell identifies the barriers to arise from:

> societal values and beliefs; economic factors; a lack of measures to ensure compliance with policies; the dispersion of responsibility for education; conservative traditions among teachers, teacher educators and educational researchers; parental resistance; lack of skills among teachers; rigid curricular and examination systems; fragile democratic institutions; inadequate educational infrastructures, particularly in rural and remote areas; large class sizes; resistance from the special education sector (especially special schools); and a top-down introduction of inclusive education without adequate preparation of schools and communities (p. 11).

Again, Barton (2005) (Barton, http://www.leeds.ac.uk/disability-studies/archiveuk/barton/Warnock.pdf.) argues that inclusion is located within contradictory and competing policy context which has led to lack of political will on the part of government to unreservedly support inclusion. It can therefore be seen that socio-political, educational and home factors could lead to governments being rhetorical and apathetic towards the development and practice of inclusion. The country as a whole appears to have a complete misunderstanding of the real meaning

of inclusion. In the UK, the SEN Code of Practice (1.7) (DfEE, 2001) requires partnership between Local Educational Authorities (LEAs), schools, parents, pupils, health and social services and other agencies in meeting the needs of children with SEN. Zambelli and Bonni (2004, p. 351) see inclusion as a complex phenomenon to require the participation of all, in particular, teachers who have to create the right atmosphere for collaboration. This should be seen as more realistic approach than entrusting the responsibility to one division. Emanuelsson et al (2005) do not support the belief that inclusion belongs to special educators and that they have the sole responsibility to make the child with SEN and disability adapt to inclusion. This approach towards inclusion does not only appear simplistic, but also tends to thwart what inclusion purports to achieve. It can, for example, delay or deprive some children with SEN and disabilities the benefits of inclusion. Secondly, in a situation where the number of itinerant teachers falls, the programme is likely to suffer. Thirdly, other stakeholders such as regular and special education teachers, health and social services, psychologists, parents and children with SEN and disabilities are prevented from contributing to its development and practice.

What is informing the study?

Interest in the study arose when I co-ordinated a programme meant for children with special educational needs and disabilities in the Child Development Research and Referral Unit (CDRRU), University of Cape Coast (UCC), Ghana. This facility, located in the Faculty of Education, was/is more of a resource room to complement the regular school work for the diverse needs of children. One day, a desperate and bewildered parent sought counselling for her twelve year-old child who was being asked by her class teacher to be referred to and placed in a School for the Deaf. According to the parent, the classroom teacher had assured her that her daughter's educational needs could be better catered for in the School for the Deaf. Not convinced about the educational placement option, the parent had a discussion with one of the UCC students who knew of the existence of the UCC facility for children with special educational needs.

Our informal assessment of the child's needs showed there was no hearing impairment; rather, the child was having moderate intellectual difficulties. Later when the girl's teacher was contacted on the issue, her main reason for recommending special school for the girl was that her school was participating in the Performance

Monitoring Test (PMT) and the selection of the child could negatively affect the results and the academic standing of her school. More important, she felt the School for the Deaf could be the right educational placement for the child. The PMT is one of the routine assessments the Ministry of Education Policies and Strategic Plans for the Education Sector of Ghana carries out in schools in Ghana to provide a focus for parents, communities and education managers. The test is administered to a sample of pupils from all classes in all public primary schools. The main question that agitated my mind was the extent to which mainstream teachers in Ghana saw the child with SEN and disabilities to belong to the mainstream and not separate children into neat compartments of 'mine' and 'yours' instead of seeing the children to ''fall into the category of 'ours'' (Wood, 1998, p. 106; Bartolome, 1994).

Statement of the Problem

Evidence from literature indicates that special needs education is influenced largely by the knowledge, traditions, values and attitudes in society (White Paper, 1997). Since schools cannot step outside society (McManus, 2006), it appears general education teachers are influenced by these beliefs and attitudes. The Audit Report (2002) notes that parents' choice to educate their children with SEN in the mainstream is often limited by a lack of suitable provision locally and unwelcoming attitudes in some schools. Gaad (2001) found that negative attitudes are underpinned by a set of cultural beliefs and values. If teachers' attitudes are positive, it makes it easier for the implementation of policies that guarantee the child's right to be educated in regular classrooms (Atman, 1981 and Jamieson, 1984, cited in Alghazo and Gaad, 2004) However, poor teacher attitudes affect how children are accepted as members of the mainstream classroom.

As implementers of policies emanating from educational systems, teachers' lack of interest in any educational policy has serious repercussions especially on those for whom it is intended. For example, Mushoriwa, (2001) was of the view that educational programmes are likely to fail if teachers do not support them. Also, Ellins and Porter (2005) argued that if children with SEN and disabilities are to succeed in the mainstream education system, then their needs must be met within the classroom and teachers who are expected to meet them must be willing to provide for them. If teachers are not willing to meet their needs due to negative attitudes, the child could be placed in the classroom, yet nothing would be achieved.

Research literature on Ghana points out that the society has negative attitudes towards children with disabilities (Okyere, 2003, Avoke, 2001). It appears teachers in the country do not express a choice of mainstream placement for children with SEN but rather consider them to belong to special schools. Also, it seems teachers experience stressful emotional tendencies when they teach or predict to teach children with SEN. This situation has effects on the development and implementation of inclusive education.

The study therefore surveyed types of educational placement options teachers in mainstream schools in Ghana choose for children with special educational needs and the emotional reactions they experience or predict to experience in teaching children with SEN and disabilities in the mainstream. Kirk, Gallagher and Anastasiow (2000) highlight how important it is for teachers to be aware of the factors that shape their own cultural views and 'to know that their cultural beliefs and traditions may work well for them but not necessarily for others' (p. 26). Inclusive education is concerned with diversity and as Sapon-Shevin (1996) suggests teachers have to explore their own understandings, values, and beliefs about diversity. Elliott and McKenney (1998) note that before researching and choosing approaches to inclusion, it is important to determine what attitudes individual staff members have about students with SEN. They further argue that a school's approach to inclusion depends on staff beliefs for negative attitudes tend to inhibit the practice of inclusion. Finally, Peetsma et al (2001) underscore the importance of researching teachers' attitudes to inclusion since current research has not adequately answered the question on the type of school which is best to develop children with SEN.

Aims of the study

Literature on teachers' attitudes to inclusion in Ghana is little or none. Apart from a theoretical view that teachers attitudes to children with disabilities in the country is negative (Okyere, 2003, Avoke, 2001), there has not been any rigorous study to survey teachers' attitudes concerning inclusion of children with SEN and disabilities in mainstream programmes and activities. There is, for instance, no information on the type(s) of children with SEN and disabilities teachers would teach in the process of developing inclusive education. Again, it is not known if teachers in Ghana experience stressful emotional reactions in teaching children with SEN and disabilities in the mainstream. Trendall (1989) reports that gender differences, length

of teaching and level of qualification influenced the amount of stress teachers experienced. Trendall reports further that teachers in special schools reported they were less stressed than their counterparts in the mainstream. The study therefore has two large aims, namely to:

- investigate the educational placement preference teachers in Ghana made for different categories of children with special educational needs and disabilities.
- examine the emotional reactions teachers in Ghana experienced or anticipated they would experience in teaching different categories of children with special educational needs and disabilities in mainstream settings.

Research questions

In order to achieve the aims, research questions are generated. From the first aim on educational placement preference, ten questions are posed. The questions come under three subheadings, namely child characteristics, teacher characteristics, and organisational factors.

- Educational placement

Child characteristics

AI. How does type of SEN affect a teacher's preference of educational provision for children with SEN in Ghana?

AII. How do the nature and degree of SEN affect a teacher's preference of educational provision for children with SEN in Ghana?

Teacher characteristics

BI. How does a teacher's gender affect preference of educational provision for children with SEN in Ghana?

BII. How does a teacher's age affect preference of educational provision for children with SEN in Ghana?

BIII. How does a teacher's qualification affect preference of educational provision for children with SEN in Ghana?

BIV. How does a teacher's length of teaching experience affect preference of educational provision for children with SEN in Ghana?

BV. How does a teacher's level of experience affect preference of educational provision for children with SEN in Ghana?

BVI. How does a teacher's knowledge of SEN affect preference of educational provision for children with SEN in Ghana?

Organisational factors

CI. How does location, in terms of region, affect a teacher's preference of educational provision for children with SEN in Ghana?

CII. How does location, in terms of level of urbanisation, affect a teacher's preference of educational provision for children with SEN in Ghana?

CIII. What are the preferences of support services for teachers in including children with SEN in the mainstream in Ghana?

- Emotional reactions

In order to achieve the second aim on teachers' emotional reactions, six research questions are posed: These are:

1. What types of emotional reaction do teachers experience in teaching children with SEN in inclusive settings in Ghana?
2. What gender differences are there in emotional reactions in teaching children with SEN in inclusive settings in Ghana?
3. What differences are there between trained and untrained teachers in emotional reactions in teaching children with SEN in inclusive settings in Ghana?
4. What difference does length of experience of teaching children with SEN have on teachers' emotional reactions in inclusive settings in Ghana?
5. What difference does level of experience of teaching children with SEN have on teachers' emotional reactions in inclusive settings in Ghana?
6. What difference does a teacher's knowledge of SEN have on teachers' emotional reactions in inclusive settings in Ghana?

Expected outcomes of the study

1. Information on type(s) of SEN to include or exclude

Literature on inclusion indicates that children with emotional and behavioural difficulties (EBD) cause more concern and stress to teachers than other types of SEN (Avramidis, Bayliss and Burden, 2000; p. 288; Clough and Lindsay, 1991). Is this

finding global or limited to space; would a study in Ghana produce the same results as we find in most Western literature? It was therefore envisaged that the study could bring to the fore the type(s) of SEN teachers in Ghana find difficulty to mainstream in the process of developing inclusion. Literature from the country indicates that social attitudes to individuals with SEN are negative (Okyere, 2003, Avoke, 2001). However, there is no information about the type(s) of children with SEN teachers have difficulties including in mainstream curriculum. A study of this nature is imperative for it would bring out the type(s) of children with SEN teachers in Ghana would choose to include or exclude in their bid to embrace the philosophy of inclusion. It would also facilitate decisions regarding the steps to take to successfully include all children with SEN in the country.

2. Curriculum provisions

The study found out if teachers' gender, age and length of teaching experience (Avramidis et al, 2000; Clough and Lindsay, 1991; Center and Ward, 1987) had any effect on their choice of educational provision for and emotional reaction to children with SEN. Educational plans such as pre-service and in-service training programmes only become useful if all teachers irrespective of gender, ages and length of teaching experience welcome them. In carrying out the study therefore, issues relating to teacher education would be brought to the fore particularly, the issue of appropriate curriculum, as well as pre-service and in-service training programmes. Ainscow (1997) argues that the classroom and curriculum provision are important factors in moving away from the deficit model and creating a classroom that honours all. In the UK, statutory provisions made in the National Curriculum require differentiation to be made for all children. The National Literacy and Numeracy Strategy Frameworks provide efficient planning models that allow every teacher, irrespective of gender to match teaching objectives to the needs of their pupils. It is hoped that the recommendations that would be made could be useful to educational authorities and administrators to seriously consider methodologies and principles on SEN education in the school curriculum.

3. Teacher education and training

Further, the study ascertained teachers' attitudes based on the knowledge they have gained from children with SEN and disabilities. Avramidis et al (2000, p. 280)

find that this area has attracted 'considerable attention'. Though there is no SEN-specific pedagogy (Lewis and Norwich, 1999), Rose (2002, p. 74) opines that there is urgent need to focus attention on teaching approaches which enable children with SEN and disabilities to perform effectively in mainstream classrooms. If teachers lack the training and information, they are likely to reject children with SEN and disabilities. It is the training that would enhance their knowledge and understanding of the nature and causes of disabilities, challenge their beliefs and attitudes, and help them accommodate children with SEN in the mainstream. Teachers can make adaptations in the curriculum and physical environment when their training enables them to be creative enough to instantly appraise the needs of the child with SEN. The need for quality teacher education and training would therefore be seen as imperative. The need for an index for Inclusion such as was developed and used in the United Kingdom would be underscored.

4. Resource distribution

Teaching and learning resources are central to inclusion. Hence, the study found out if the area a teacher worked, in terms of urban, semi-urban, or rural, had an effect on their attitudes to inclusion. In the government paper 'Every child matters' (DfES, 2003) all children are to be valued irrespective of their location. This would mean the government would have to commit itself to developing interest in and funding education and training of SEN particularly in areas concerning resource acquisition, distribution and management. With sufficient resources, both teachers and children can work effectively and efficiently in the teaching and learning environment. By developing teacher skills and competencies and distributing resources fairly as well as having manageable class sizes, teachers would be in a position to accept and work efficiently with children with SEN and disabilities and to push the practice of inclusion forward. This would have the added advantage of helping children with SEN to be with their non SEN peers. They would learn, play, work together and acquire skills that could be useful for independent living.

5. Information about the statistics of children with SEN

It was expected that the need would arise for a country-wide special needs analysis. In order for human and educational resources to be procured and efficiently distributed, the government and educational authorities would require statistics of

children with SEN. In other words, information on the number of children with SEN would be needed. Such information as the number and types of SEN and how they are distributed and the nature and degree of SEN are important factors to consider in planning for inclusion. This information can go a long way to reduce waste and to spend scarce resources prudently. More important, it would go a long way to reduce ad hoc measures governments put in place in educating children with SEN and disabilities. This way, government officials would see relevance and utility in SEN education and not think inclusion is expensive. The study hoped to underscore this fact.

6. Inter-agency co-operation and collaboration

It was expected for the study to yield information about some children teachers would exclude. This would mean that help would have to be sought elsewhere if their inclusion can be possible. It was realised that no inclusive programme could last for a moment if the classroom teacher does it alone. Teamwork is prerequisite. The co-operation and collaboration of multi-agency staff such as personnel from education, health, social services, psychology and counselling as well as parents (who may not be professionals themselves, but who hold in their hands key information about their wards) could be brought together to meet the needs of the child. It was expected that this could do a lot to calm down parents' fears and anxieties and stress as well as reduce children's frustrations and disillusions in the mainstream.

7. Extending the frontiers of knowledge.

There is a plethora of research literature on teachers' beliefs and attitudes, but it appears there is no information about teacher attitudes to inclusion when Constitutions and government documents rhetorically support inclusion. Will teachers support inclusion of all children with SEN? Are emotional and behavioural difficulties a global concern for all teachers? It appears literature is yet to establish strong and consistent evidence on the influence of teachers' gender, age, qualification, length of teaching experience and area of school on SEN (Avramidis et al, 2000, p. 280). There is very little on teachers' emotional reactions in teaching or when predicted to teach children with SEN in inclusive settings. These are major gaps the study hopes to fill in the literature.

In summary, the study is expected to bring to the fore some of the obstacles to inclusive practice. Such issues as the type of children teachers would teach in the mainstream, teacher education and training, curriculum provisions, statistics of children with SEN, government funding, resources and materials, inter-agency co-operation and collaboration, and parental involvement would be brought out and discussed. Related to this, government would realise how important it is to support SEN education with stronger commitment and flexible policies and not rhetorical statements. The policies and practice on inclusion could help teachers reconsider some of their practices in the attainment of inclusion (Ainscow, 1998; Udvari-Solner and Thousand, 1995).

Conceptual Framework

Fishbein and Ajzen (1975) proposed the theory of reasoned action arguing that strong relationships between attitudes and behaviour will only be found where attitudinal measures and behavioural measures are compatible with respect to the action, object, context, and time elements of behaviour. This theory seems to suggest that in engaging in any particular behaviour, a person has to consider a number of behavioural options, evaluate the consequences or outcomes of each and reach a decision to act or not to act. Manstead (1996, p. 14) posits that this behavioural intention, in terms of the decision to perform or not to perform any intended behaviour is the prerogative (volition) of the person. In contextualising this idea, teachers look at the effects their decision to choose to include or not include children with SEN and disabilities in the mainstream have on them and others especially children without SEN and disabilities. But the decision tends to be personal and not influenced by other people. Consequently, a teacher's gender, age, qualification, length and level of teaching experience, knowledge of SEN and disabilities and systems of support available may influence the decision the individual teacher makes to include or exclude a child with SEN and disabilities.

Ajzen (1988) further proposed the theory of planned behaviour as an extension to the theory of reasoned action. This theory represents the individual's perception of how easy or difficult it is to perform a particular behaviour. If behaviour is easy to perform it is rated high in perceived behavioural control, but a difficult one is rated low in perceived behavioural control. Therefore in the study, information is sought on whether the type, nature and degree of a child's SEN and disabilities have an effect on

teachers' attitudes to inclusion. Also investigated are the effects a teacher's gender and age, qualification and systems of support available have on their preferences of children with SEN and disabilities for inclusion. Based on the results, inference could be drawn on the impact of the theories of reasoned action and planned behaviour on teachers' attitudes to inclusion.

The third theory is attitude-to-behaviour process model by Fazio and Roskos-Ewoldsen (1994) and Fazio (1989). The model puts emphasis on the strength of stored knowledge of and experience with the attitude object. Fazio's (1986, 1990) argument is that attitudes formed on the basis of a teacher's strength of stored knowledge and direct behavioural experience with an object are more predictive of future behaviour towards that object than are those based on indirect experience. This theory may find support from a three-year period study carried out by Leroy and Simpson (1996) in the state of Michigan in the United States. There was an indication that teachers' negative or neutral attitudes at the beginning of an innovation such as inclusive education may change over time as a function of experience and the expertise that develops through the process of implementation'. It appears the more experience one has with an attitude object, the stronger will be this associative link between the object and the way it is evaluated. It would therefore be found out from the study if the educational placement preferences teachers make for children with SEN and disabilities are affected by their length and level of teaching experience and stored knowledge of children with SEN and disabilities.

Thus, in this chapter, the need to educate children with special educational needs and disabilities in the mainstream has been discussed. It was pointed out that UNESCO Salamanca Statement (UNESCO, 1994) enjoined all countries to educate children with SEN and disabilities in the mainstream. It was the contention of the members of the conference that regular education is the most effective means of combating discriminatory attitudes and creating welcoming communities (UNESCO, 1994). While maintaining that challenges do exist in developing and implementing inclusive practice due to negative teacher attitudes, the point was made that it is a universal call which countries such as the United Kingdom and South Africa have welcomed and made attempts to implement through the development and implementation of educational and SEN policies. It was said that Ghana has ratified the Convention on the Rights of the Child and is educating all children through the free compulsory universal basic education (fCUBE) initiative, but there are no clearly

defined SEN-specific policy guidelines to regulate the education of children with SEN and disabilities. The blue print of the Ministry of Education Policies and Strategic Plans for the Education Sector of Ghana is cautious of the implementation of inclusion due to teachers' 'circumstance'. This makes it imperative to carry out a study of this kind to reshape SEN policy development and implementation in the country.

In order to have an understanding of the subject matter under consideration and to find answers to the research questions, the next three chapters are devoted to a review of literature. This would be both theoretical and empirical. Theoretical literature focuses mainly on assumptions, while empirical ones are concerned with actual research findings. The aim is to verify what authorities and previous researchers have so far achieved in the area of interest and what gaps are there to be filled. Most important, the review helps in generating questions to answer the research questions. In the review, the meanings and descriptions of concepts as well as theories underpinning the concepts are discussed.

CHAPTER TWO

SPECIAL EDUCATIONAL NEEDS

Introduction

This chapter is the first of three chapters in reviewing literature on teachers' attitudes to inclusion in Ghana. The two others are 'Inclusion' and 'Beliefs and Attitudes'. Though each of them can be looked at separately and independently, as far as the aims of the study are concerned, they should be considered wholly. In reviewing literature on special educational needs the following are considered:

- Origin and concept of the term 'special educational needs'
- Defining the term 'special educational needs'
- Models for categorisation
- Children with special educational needs
- Factors considered in SEN teaching
- Pedagogy for children with SEN

The origin and concept of the term 'special educational needs'

The Warnock Committee of Enquiry, set up by the Conservative government of the United Kingdom to look into the education of handicapped children and young people, proposed the term 'special educational needs' (Department of Education and Science, 1978). This was in a bid to boost social acceptance of individuals with disabilities and reconceptualise special education (Adams, Swain and Clark, 2000) in England, Scotland and Wales. Prior to the Committee's term, 'ten existing statutory categories of handicap' (Skidmore, 2004, p. 5) including labels such as 'handicap' and 'disabled' had been used to describe children and individuals now known as having special educational needs.

However, the use of the term has been regarded as controversial and generated a lot of debate in literature. Tomlinson (1985, cited in Skidmore, 2004, p. 5) questions whether the change in terminology masked a practice of stratification which determines children's educational careers defined by an administrative label. Gross

(2002), for example, regards the use of the term 'special educational needs' as nebulous / fluid and inappropriate. Solity (1991) thinks the terminology only encourages discriminatory practices. She argues that any child might experience learning difficulties at some point and that holding on to the term pushes us into the medical model with its pessimistic tendencies instead of the contemporary social model which is more optimistic in overcoming difficulties (the models are looked at later in the chapter). Corbett (1996) argues that the very term 'special' instead of conferring honour and dignity to individuals with disabilities, rather emphasised their relative powerlessness. These arguments seem to suggest that there is discontent in using the term 'special educational needs' to define individuals with disabilities.

In attempting a description that could be regarded as more appropriate and shift away from the use of special educational needs, Solity (1991) uses the description children that 'teachers experience difficulty in teaching', instead of the 'special educational needs' Warnock Committee proposed. Gross supported Solity's description and concluded that this definition or description should be used. Using evidence derived from research, Gross (2002) argues that a child's achievement or lack of it is dependent on the effectiveness of a school and that if efforts are made to improve teaching techniques, achievement levels increase. Gross further argues that teachers who are confident in themselves and capable of moving 'the child on in learning, even in small steps don't need to pass the buck or suggest they should be elsewhere' (p.1). Citing Joyce et al's, (1991) study in the United States, Gross showed how a whole school improvement programme succeeded in reducing the proportion of students who failed their end of grade assessment from 70 percent to 6 percent in two years.

Solity and Gross are implying that if teaching strategies take every child's needs into consideration (Nind, 2000; Barthorpe and Visser, 1991), achievement levels would rise and there would probably not be 'special educational needs'. But this example only identifies and/or explains why there is/are special educational needs without necessarily solving the problem of appropriate label. The use of the description 'teachers experience difficulty in teaching' lends itself to several criticisms since (i) any child whether gifted or disabled physically, intellectually, emotionally or socially could pose a serious challenge to a teacher to make it difficult for the teacher to teach, and (ii) the description does not offer much information and help to teachers in planning instructions for those children who may need 'additional to / different from'

programmes in their curriculum (DfES, 2001). On a more serious note, (iii) describing children with SEN as those 'teachers experience difficulty in teaching' does not convey the right picture to teachers since it can be an excuse for some or all teachers not to make any effort to teach them since in doing so there would be 'difficulty'. In thinking of a more appropriate terminology, I personally feel worried about Warnock's 'special educational needs' terminology, but compared with terms previously used to describe individuals deviating from what society regarded as normal or the one Solity has proposed, it appears to be more humane and more related to instruction (Adelman, 1996).

Defining the term 'special educational needs'

Assigning a label 'special educational needs' to children with disabilities without an understanding of what it means or who they are is unhelpful. In the United Kingdom, the Special Educational Needs Code of Practice (DfES, 2001) defines the term 'special educational needs' as:

> Children have special educational needs if they have a *learning difficulty* which calls for special educational provision to be made for them (p. 6).

In order to erase doubts about what learning difficulty is the Code indicates that children have a *learning difficulty* if they:

a) have a significantly greater difficulty in learning than the majority of children of the same age; or
b) have a disability which prevents or hinders them from making use of educational facilities of a kind generally provided for children of the same age in schools within the area of the local education authority
c) are under compulsory school age and fall within the definition at (a) or (b) above or would do so if special educational provision was not made for them (p. 6).

The term includes those with social and cultural disadvantages as well as those with specific disabilities and children who are 'at risk' of developing more severe problems in future (Institute for Education Policy Studies http://www.edpolicy.gwu.edu/resources/enhancing/part_b.html). However, children are not to be regarded as having a learning difficulty on the grounds that the language or form of language of their home is different from the language in which they will be taught. The International Standard Classification of Education-ISCED (1997) (UNESCO, ISCED, 1997 http://www.unesco.org/education/information/nfsunesco/doc/isced_1997.htm) regards

the concept children with special educational needs to extend beyond the handicapped to include those failing in school for various reasons likely to impede their optimal progress. They intimate that their need of additional support depends on the extent to which schools adapt their curriculum, teaching and organisation to stimulate efficient and effective learning for these pupils. Specific disabilities may be understood to mean conditions such as listening, reading, arithmetic, writing, written expression, handwriting and spelling difficulties. Any of these could constitute specific disabilities.

The Special Educational Needs Code of Practice (DfES, 2001) did not classify or categorise various categories of children with SEN. However, the UK government's Green Paper on Excellence of education (DfEE, 1997) makes the suggestion that children with SEN are a readily defined group with common characteristics and sometimes used as though meant for the 3% of pupils with a Statement of SEN as well as those children from disadvantaged families. Children are identified of having SEN not on the basis of impairments or medical conditions, but rather the difficulties they experience in school (DfES, 2001). Dyson (2005) points out that since this system of identification lacks 'objective' measures of impairment, around 18% of children in Primary Schools are identified as having SEN (p. 65). Dyson (2005) regards this system as complicating. Arguably, by failing to use objective systems for measurement and categorising all the needs it makes it difficult for especially teachers to determine various categories of children with SEN as the study of Pearson (2005, p. 19) suggests. In her study involving three hundred and fifty-four respondents of one cohort of Secondary Post Graduate Certificate of Education (PGCE) students, less than 15% identified the following as constituting SEN: dyslexia, behavioural difficulties, learning difficulties and sensory impairment. The UK, National Association for Special Educational Needs (NASEN) finds that it makes it difficult for categorisation.

Categorisation, like labelling, has received its criticism since many feel it should not be used (Hunt and Marshall, 2002). Apparently, the framers of the Special Educational Needs Code of Practice (DfES, 2001) recognised the controversies and implications of categorisation. For example, (i) categorisation does not go well with the concept of inclusion which has one of its elements as removing barriers and ensuring equal opportunity for all (Ainscow, 2005); (ii) other factors outside the child could be responsible for SEN; (iii) some SEN categories such as behavioural, emotional and social difficulties (BESD) as well as autistic spectrum disorder (NASEN,) may be difficult to define; and (iv) categorisation has long-term

consequences (Florian, 2003, p.102). Florian (2003, p. 102) indicates further that children 'rarely fit categorical descriptions of difficulty' and that 'not all disabilities give rise to special educational needs, nor are all special educational needs a result of a disability'. More important, categorisation may have no educational relevance.

However, Adams et al (2000) find that whatever changes the notion of special educational needs has brought, the elimination of categorisation has not been one of them. They state: 'the elimination of categorisation, however, has been unsuccessful' (p. 234). The elimination has for example, made it difficult for central planners to predict or control resource allocation for children with SEN (Florian, 2002). But the UK, National Association for Special Educational Needs (NASEN) opines that if categorisation is used wisely, it can be helpful to describe a condition, indicate cause and predict long-term future. Categorising children as having intellectual difficulties or emotional and behavioural difficulties or any type of category would therefore continue for some time since many professionals within special needs education consider categorisation as 'a necessary evil' (Hunt and Marshall, 2002, p. 32).

Models for categorisation

There are various definitions given to the term model but I have chosen one which explains the term as something that gives a theoretical account or framework or a hypothetical description of a complex entity or process (Miller, George, WordNet Search http://wordnet.princeton.edu/perl/webwn?s=model). It is a theory, framework or a hypothetical description for there may not be only one specific way of verifying or explaining the entity or phenomenon. Even in an ordinary sense of the word, model conveys such a strong influence that it affects the way people think, feel and act towards certain phenomena. Literature documents how various researchers and individuals have propounded different 'models' in studies related to attitudes to children with special educational needs and the practice of inclusion. But in reviewing SEN literature on models that help explain teachers' understanding of special educational needs, three are considered.

Individual Medical Model and the Individual Educational Model

Adams et al (2000) identify two models namely: an Individual Medical Model and the Individual Educational Model. They conceive the Individual Medical Model in relation to non-impairment or non disabled. According to them, the model is less

threatening to professionals and considered in humanistic terms. Within the model, the term special is legitimised. In contrast, the Individual Educational Model is conceived in relation to perceived norms of capability, achievement and behaviour. It is more threatening to teachers and children. In this category, children with SEN are seen as 'children for whom other teachers could not provide education' (p. 238). This model potentially puts children into two broad categories of (i) children with special educational needs and disabilities; and (ii) children without special educational needs and disabilities. The first group are likely to be segregated since 'other teachers could not provide education'.

An evaluation of the Individual Medical Model and the Individual Educational Model shows that in both focus is primarily on the 'individual' with the SEN condition or disability. The role of the environment especially the home and school in causing SEN and disabilities is not mentioned. It leaves teachers to speculate the role they can play in teaching the child with SEN in the mainstream. It is equally difficult understanding why the Individual Medical Model rather than the Individual Educational Model is less threatening. One possible explanation may be that teachers may have very little to do with the child since the child's difficulty is medical or health-related. But this conclusion is debatable since Beveridge (1999) is of the view that not all children with medical conditions have special educational needs unless the medical condition limits access to education. She states: 'it would be misleading to suggest that medical needs necessarily represent a form of specific impairment' (p. 49).

Socially constructed disability and normative disability

Tomlinson (1982) distinguishes between 'socially constructed' disability and 'normative' disability. The socially constructed one referred to condition such as learning disabilities, whereas the normative dealt with situations such as deafness and blindness. Tomlinson does not share much information on these but the use of the word 'social' gains importance and relevance in contemporary social model.

Medical, social and interactive models

In contemporary literature, most researchers and educationists recognise the 'medical' and 'social' models; these have gained importance in research literature. A memorandum submitted by the Centre for Studies on Inclusive Education (CSIE),

September, 2005, for example, found that a medical model still operates in schools alongside a social model in government policy and legislation in the United Kingdom. The medical model stresses on 'within-child factors'. It labels and individualises instruction. It is condition-related, categorical and deterministic (Lindsay, 2003). In the CSIE September, 2005 memorandum, the medical model or individual model is described as 'individual model of disability and educational difficulty with its categorisation of difference as 'special educational need''. Thus, the medical model does not only categorise, but also individualises persons with SEN and disabilities implying that instructional arrangements and decisions must be made for only individuals diagnosed of a 'learning difficulty' (DfES, 2001). The model does not recognise the role the child's environment (such as the home and school) plays in causing SEN and disabilities (Lindsay, 2003). Farrell and Ainscow (2002) argue that explaining the child's educational difficulties in terms of deficits not only prevents progress in the field of special needs education, but also distracts attention from questions about why schools fail to teach so many children successfully (p. 6). This does not make the medical model cost effective in overcoming special educational needs since logistics and materials have to be procured for only individuals identified to have disabilities, but not those whose disabilities may be hidden. Again, Dockrell and Lindsay (2000) state that:

> inclusive policies do not combine easily with medical models of diagnosis and interventions which focus within-child deficits rather than the support needed to meet the child's educational needs (p. 25).

It was the weakness found in the medical model that necessitated the use of the social model whose proponents were people with disabilities (Adams et al, 2000). Lindsay (2003) points out that the social model is on the ascendancy and has been extensively considered in policy formulation and legislation development. The social model recognises the 'rights' of all children including those with SEN and disabilities. The social model holds that the child's social environment (i.e. the home, school and community) is critical to a child's mental health and physical wellbeing. It is argued that disability occurs where the environment is not supportive. If the home, school and community can provide adequate support through the creation of equal opportunities for all, then there can be no disability.

Avoke (2001) argues that 'if there is a policy shift to inclusion, then the social model would indeed be relevant and critical in creating an inclusive and integrated environment' (p. 37). However, some authorities maintain that the social model is

inadequate in this debate and for the inclusion of children with SEN in the mainstream. Mithaug (1998), for example, maintains that the use of the social model has led to 'too many policy failures and unexpected negative consequences in the last decade' (p. 5). Lindsay (2003, p. 6) follows up this debate by arguing that within-child factors cannot be ignored since children have 'unequal natural capacity'. According to Lindsay, the social model is 'illogical and unhelpful' (p. 5).

This apparent tension seems to have been resolved by Weddell (1978) who considered the interplay of within-child factors and environmental ones. This is the Interactive model. In this model, also referred to as the concept of compensatory interaction, the needs of children with SEN are considered with respect to their individual relative strengths and weaknesses (that is within-child factors or inherent characteristics) and the nature of their environment (that is the supports and barriers surrounding them) (Lindsay, 2003). Thus, instead of seeing the medical and social models as separate and distinct, they must be viewed as interdependent and interlocking.

It can be seen from the foregoing, that children with SEN could be better helped if the interactive model of Weddell is considered. The needs of the child have to be comprehensively and thoroughly assessed for information on the type, nature and degree of SEN. This could help in facilitating decisions on appropriate educational placement and support service(s). Assessment can be approached by the multidisciplinary team comprising medical and health personnel, personnel of social services, educationists (including regular and special), psychologist and speech and language therapists. It is also suggested that parents should be involved as much as possible since they hold key information about their children (Okyere, 2003; DfES, 2001). Parental partnership is important since the information parents give to the professionals can be useful in helping them to make invaluable decisions affecting the child's education and development. But in Ghana, Okyere (2003) states emphatically that 'parental involvement in the decision-making concerning their children is totally absent' (p. 26). It is equally important to involve and listen to the voices of the SEN children themselves if they are able to express themselves. They should be given the chance to suggest the type of school and help they would need. Articles 12 and 13 of the United Nations Convention on the Rights of the Child and the UK SEN Code of Practice underscore this point.

In the United States, the system of special education is based upon the rigid categorisation of children into specific impairments or disabilities. In Ghana, the medical model is used to categorise children with special educational needs (Avoke, 2002, 2001) and the US system of categorising is dominant. According to Avoke (2001) the medical model is 'quite pervasive in the assessment and placement procedures for people with disabilities in Ghana' (p. 37). Under US law, the term children with disabilities means children with mental retardation; hearing impairments, including deafness; speech or language impairments; visual impairments, including blindness; serious emotional disturbance; orthopaedic or physical impairments; autism; head injuries (traumatic brain injuries); other health impairments; and specific learning disabilities (P.L. 101-476) (Institute for Education Policy Studies http://www.edpolicy.gwu.edu/resources/enhancing/part_b.html).

In this study, I see a child to have special educational needs (SEN) and disability if the child has a disability that requires some adaptations in the curriculum and classroom physical environment for him or her to succeed. In this context, children who are gifted and talented are excluded from the definition.

Children with special educational needs

In Ghana children with SEN are assigned labels. For purposes of this study, ten of the categories are reviewed. These are children with mild to moderate intellectual difficulties; severe to profound intellectual difficulties, and emotional and behavioural difficulties. Others are physical disorders; health disorders and deafness. The rest are hard-of-hearing; blindness and low vision; and speech and language difficulties.

<u>Children with intellectual difficulties (that is the mentally retarded)</u>

The United States has mostly depended on the medical model and the use of intelligence tests to assess and categorise children with intellectual difficulties. Two of the most commonly used are the Wechsler Intelligence Scale for Children 3rd edition (WISC-III) and Stanford-Binet Intelligence Scale (Hunt and Marshall, 2002, p. 172). The traditional classifications have therefore relied on the level of intelligence quotient (IQ) where the basis of an individual's score on intelligence test is used to determine intellectual levels. The World Health Organisation (WHO) (1993, cited in Okyere, 2003, p. 273) classification system was: mild (IQ 50-69), moderate (IQ 35-49), severe (IQ 20-34), and profound (IQ below 20). According to Kirk et al (2000, p. 169), the

mild indicated development at between one-half and three-fourths of the normal rate; moderate was about one-half of the normal rate; severe was slightly more than one-fourth of normal cognitive development; and profound was less than one-fourth the normal rate. The use of such tests has come under serious criticism in recent times because they may be culturally bias. In order to move away from classification systems derived from intelligence tests, Luckasson et al (1992) have proposed a system which relies more on the level of support.

- Intermittent (short-term supports)
- Limited (occasionally ongoing)
- Extensive (regular involvement)
- Pervasive (constancy and high intensity)

Though in Ghana intelligence tests are hardly used, classification systems are based on intelligence tests. Apart from the Accra Psychiatry Hospital where intelligence tests may be used, such tests are not a common feature in the education system for assessing children with SEN. Also, most of the teachers in the country are not familiar with the tests. Children with intellectual difficulties are classified by mildly retarded, moderately retarded, severely retarded or profoundly retarded. The country is yet to adopt Luckasson et al's (1992) classification system that uses the type of support the individual requires.

An examination of literature on individuals with intellectual difficulties or mental retardation indicates that they manifest difficulties in adjusting academically and socially (Adams, 2003, p. 268). Office of Standard of Education (Ofsted) describes moderate intellectual or learning difficulty as developmental delay across a number of areas. According to the office, children with this condition have attainments below expected levels in most subjects across the curriculum. There is, for example, 'difficulty in acquiring basic literacy and numeracy skills'. These difficulties may be due to short memory, poor attention span and their inability to transfer knowledge. According to Ofsted, the children in many cases have speech and language difficulties which are associated with intellectual delay.

Children with severe intellectual or learning difficulties are always identified before school going age (Cartwright et al, 1995, p. 258) and they may be unable to develop any form of expressive speech or language (Hunt and Marshall, 2002). Ofsted describes them as having significant global delay. What this means is that their difficulties cover all areas of the curriculum including self-help and social skills. Ofsted mentions mobility and co-ordination difficulties, communication difficulties

and challenging behaviour. Those with profound intellectual difficulties need a one-to-one support daily.

In Ghana, there are special schools for children with mental retardation (that is children with intellectual difficulties). A common feature about special schools for children with intellectual difficulties is that irrespective of the degree of difficulty, the children are often put together in the same classroom and do not have exit points (Gyimah, 2001). Madden and Slavin (1983) think inclusion might not be suitable for children with serious problems. They tend to 'require extensive ongoing support in more than one major area of life activity' (Association for Persons with Severe Handicaps, 1989, p. 30). The theory of planned behaviour (Ajzen, 1988) can explain why a thing like this happens (see literature on the theory in Chapter 4). If teachers in regular education think much would be required to meet their needs, they are not likely to select them for inclusion.

Okyere (2003) points out that social attitude towards children with severe to profound retardation in most societies in Africa, including Ghana, is negative. Okyere says there is a widespread belief that the condition is infectious. This type of belief is negating for it affects how teachers perceive individuals with SEN and disabilities and the extent to which they are willing to engage them actively in participating fully in the mainstream. Children with mild and moderate conditions may not be noticed until school going age when they begin to show difficulties in their academic work. Norwich and Lewis (2001, p. 322) point out that many pupils labelled as moderate learning difficulties have no organic cause for their learning difficulties. This may imply that when adjustment is made in the school curriculum, their individual needs could be met. Madden and Slavin (1983) posit that mainstream placement is the preferred option for children with minor educational problems. But Adams (2003, p. 267) thinks the children must try to cope with little or no special help in order for them to be accepted in the regular school system. Okyere attributes early age school drop out of this group to lack of coping skills. However, I do not support this view since this is more related to integration than inclusion. In integration, the child with SEN is expected to adapt or cope but in inclusion, the school rather than the individual adapts (see Chapter 3). Schools must adapt for the child to succeed. If children are dropping out, then it presupposes schools in Ghana are not doing enough to accommodate the children. The suggestion Madden and Slavin make becomes relevant in this argument. They proposed that provision is made for individualised teaching or good remedial

programmes are adopted for their performance, self-image, behavioural and emotional adjustment. Audio-visual aids or teaching and learning materials must be procured and teachers encouraged to support them in inclusive settings to eliminate or reduce drop out rate.

Children with emotional and behavioural difficulties

Many studies have reported that children with emotional and behavioural difficulties are seen as causing the most concern for teachers in the mainstream (Avramidis et al, 2000; Clough and Lindsay, 1991). The Audit Commission (2002, p. 28) reports that pupils with emotional and behavioural difficulties are far more likely to be permanently excluded from schools in England than other children with SEN. Literature is uncertain about a definition that makes an identification of children with emotional and behavioural difficulties easier. The symptoms or conditions can be described but the term cannot be well defined. It seems to be culturally determined. Kaplan (1996) puts the figure of the school population of those with emotional and behavioural difficulties at less than one percent. In recent times, the use of the term 'behavioural, emotional, and social development' (BESD), Attention Deficit Hyperactivity/Disorder (ADHD); and Attention Deficit Disorder (ADD) is becoming more common in literature than emotional and behavioural difficulties (Davis and Florian, 2004, p. 22). Ofsted points out that BESD encompasses a continuum of severity and presents a barrier to learning. Within BESD are 'social, emotional, behavioural difficulties' (SEBD) and 'attention deficit/hyperactivity disorder' (ADHD).

Behavioural disorders can be caused by a variety of factors. SEBD may be caused either by deep-seated emotional/psychiatric disturbance or a response to outward circumstances (DfEE, 1994, Circular 9/94; Davis and Florian, 2004). There are various ranges of SEBD including acting out, phobic and withdrawn behaviour, crime, substance abuse, depression, and self-harm (Cooper, 2001). These behaviours do not only affect the person engaging in them, but also others. The individual may not do well in school (Lewis and Doorlag, 1995). Fowler (1994) identifies three major components of ADHD namely *hyperactivity, inattentiveness and impulsivity*. Heward (1996) describes hyperactivity as high rates of purposeless movement. The American Psychiatric Association's (APA) (1994) classification of hyperactivity is determined on the basis of:

(a) fidgeting with hands or feet or squirming (move from side to side) in seat
(b) leaving seat in classroom or in other situations in which remaining seated is required.
(c) running about or climbing excessively in situations in which it is inappropriate.

Heward (1996) states that if a child can be diagnosed as having attention deficit disorder (ADD) he or she should manifest, consistently, six or more symptoms of either attention disorders or hyperactivity impulsivity for a period of at least 6 months. Inattentiveness connotes the inability to attend to a classroom activity. The APA provides the following as symptoms:

(a) failing to give close attention to details or making careless mistakes in school work, work, or other activities.
(b) difficulty sustaining attention in tasks or play activities.
(c) not seeming to listen when spoken to directly.
(d) not following through on instructions and failing to finish school work, chores, or duties in the work place
(e) difficulty organising tasks and activities
(f) avoiding, disliking or reluctant to engage in tasks that require sustained mental effort.
(g) losing things necessary for tasks or activities
(h) easily distracted by extraneous stimuli.
(i) forgetful in daily activities.

Impulsivity is experienced when a person engages in behaviour without any consideration of the effects it will produce on himself or others. In diagnosing impulsive behaviour the APA uses the following criteria:

(a) blurting out answers before questions have been completed.
(b) difficulty in awaiting turn
(c) interrupting or intruding on others

Coie (1996) finds these difficulties to result in poor academic achievements and child management problems for teachers. Most interventions have relied on behavioural principles such as the use of reinforcement, punishment, cognitive behavioural models that enjoin the individual to reflect on his behaviour (Davis and Florian, 2004, p. 23). Others depend on the cause(s) of the behavioural condition. For example, there are psychodynamic or psychotherapy model from Sigmund Freud, biomedical model that emphasises the use of medicine or diet and psycho-educational. While these have contributed in some ways, they do not go far enough since only bits of the child's difficulties are considered. In recent times, the application of systemic model is becoming common. Cooper, Smith and Upton (1994) argue that behaviour difficulties should be seen as ecosystemic since they cannot be accounted for in terms of a simple cause-effect model. In looking for ways to intervene therefore, they suggest

the use of all participating parties; including the home and school. They caution that anyone whose involvement in the situation is not helping to solve the problem is part of the cause of the problem as there is no neutral position. This seems to imply that in solving behavioural difficulties, team effort is important and the role of the teacher in helping the child to achieve cannot be relegated to the background.

Children with physical and health disorders

The Audit Commission (2002) points out that children with physical conditions tend to be identified earlier and more reliably. Literature often identifies two main types of physical disorders namely neurological or orthopaedic difficulties and musculoskeletal condition (Hunt and Marshall, 2002). The neurological or orthopaedic difficulties occur when the brain, nerves and spinal cord are affected (Fraser et al, 1990) or when the central nervous system becomes dysfunctional. They include conditions such as cerebral palsy (Hunt and Marshall, 2002) and spina bifida (Cartwright et al, 1995, p. 196).

Cerebral palsy is a condition which affects a person's movement and posture. Okyere (2003, p. 323) identifies three different types of cerebral palsy on the basis of where the lesions occur in the brain. These are spasticity (or hypertonia); extrapyramidal disorders; and mixed cerebral palsy. Spasticity is characterised by contraction, tension or increased stiffness of muscles (Okyere, 2003, p. 323; Denhoff, 1975). Extrapyramidal disorders include athetosis which is characterised by slow writhing movements accompanying the athetoid movements; choreoathetosis, characterised by quick, unintentional jerky movements; dystonia, involves the whole trunk and characterised by slow and rhythmic movements; and ataxia, characterised by lurching walking gait and difficulty in maintaining balance. Okyere points out that the disorders reduce ability to move and function in purposeful way. If the condition affects the hand, it may make it difficult for a child to perform an activity such as writing or drawing in the classroom. The mixed cerebral palsy occurs when a combination of movement difficulties occur such as a child with spasticity and ataxia.

Spina bifida, also known as open spine and neural tube defect, (NTD) is used to describe a midline defect of the skin, spinal column, and spinal cord (Caldwell, Todaro and Gates, 1988). Spina bifida is said to occur during the first three months of foetal development. Children with spina bifida may have limited or no muscle control of the affected area (Hunt and Marshall, 2002). Literature on neurological or orthopaedic

difficulties shows that prosthetic devices and wheelchairs are needed for the child to be able to move from one place to another. There are also times when the child with the condition may need assistance with self-care. Cartwright et al (1995) note that children with central nervous system disorders often have impairments in learning and physical functioning. Musculoskeletal condition, on the other hand, affects the muscles and joints. They include muscular dystrophy and congenital malformations. Muscular dystrophy occurs when voluntary muscles of the body weaken progressively. The most common type of muscular dystrophy is Duchenne muscular dystrophy, an inherited disorder characterised by degeneration of muscle fibres (Hunt and Marshall, 2002; Batshaw, 1997). Congenital malformations occur when there is improper formation of the skeletal or muscular system during foetal development. This results in a child being born with malformations (Batshaw and Perret, 1992, cited in Hunt and Marshall, 2002, p. 420). A typical example is clubfoot where 'the forefoot and heel are turned in and down toward the body' (Hunt and Marshall, 2002, p. 420).

If schools can adapt to enable children with physical disorders to benefit from the mainstream, then their 'motor skills and mobility, self-care skills and social and emotional development' (Hunt and Marshall, 2000, p. 513) must be taken into consideration. More important, there should be enough space for free movement. Adapting the physical environment appears to be a major strategy to increase access and participation in learning (Davis and Florian, 2004). But research literature focusing on teaching approaches for children with physical difficulties is less available (Davis and Florian, 2004). In the United Kingdom, the generally accepted form of education for children with physical disorders has been mainstream or special school (Morgan and Hogan, 2005). But as Taylor and Emery (1995) argue, none of these adequately meets the needs of the child as they provide fragmented therapeutic interventions. This means that for the child with physical disorders to be an active participant, a holistic approach should be adopted. There should be a form of collaboration between regular and special education including special services such as physiotherapy. For example, an arrangement can be made for both regular and special education teachers and physiotherapists to meet to discuss child's needs and how they could be addressed. The use of Information and Communication Technology (ICT) is another form of strategy which has been used to a great success (Becta, 2003).

Health disorders are related to physical and/or medical conditions. Hunt and Marshall (2002) regard the term health impairment as:

> conditions in which one or more of the body's systems are affected by diseases or conditions that are debilitating or life threatening or that interfere with the student's ability to perform in a regular classroom setting (p. 411).

Health problems include conditions as allergies, rheumatic fevers, cardio-vascular (or heart) diseases, diabetes, sickle cell anaemia, tuberculosis, asthma, leukaemia, haemophilia, epilepsy and sexually transmitted diseases such as syphilis, and acquired immune deficiency syndrome (AIDS) are a few examples of medical conditions that pose threat to the child's academic work. The child with health conditions may regularly miss classes due to hospitalisation. Teachers would therefore be required to plan remedial services in order to avoid leaving gaps in child's knowledge. Moreover, where the child is on medication, for example, teachers may be required to supervise medication whenever the child attends school. These may be regarded as additional responsibilities which the regular teacher may assume which are likely to affect the teacher accepting the child with health disorders for inclusion.

Children with sensory impairments

Sensory impairments are impairments related to hearing and visual losses. These conditions can be mild to moderate or severe to profound. According to Stakes and Hornby (2001) children with hearing impairment probably make up the second largest group of children with SEN. The definition of hearing impairment is usually done on the basis of (i) the degree of loss, (ii) the age of onset of loss, and (iii) the type of loss (Kirk et al, 2000).

The degree of loss is measured in decibels (symbolised by dB). Two types are usually distinguished namely: the hard-of-hearing and deafness. The hard-of-hearing are usually considered as having mild to moderate hearing losses. This group is capable of perceiving and understanding speech with or without the use of hearing aids (Moores, 1987, cited in Ysseldyke and Algozzine, 1995, p. 385). The deaf, on the other hand, are those with severe to profound hearing losses. Kirk et al (2000) indicate that only 1 per cent of the population of the deaf are unable to perceive and understand speech under any conditions. This means that a majority of the population of children with hearing losses can be mainstreamed to benefit from the mainstream curriculum. The hard-of-hearing form the majority and they can be typically placed in mainstream schools and may receive speech and language therapy from speech and language therapists. It is typical to expect the majority of children with severe to profound hearing losses enrolled in special schools. In Ghana, the hard-of-hearing and deaf are

often put together in special schools and no distinction is made between them. Schildroth and Hotto (1995) indicate that in the US, about 70 per cent of the deaf attend local public schools. They, however, noted that the details of school programmes and placement decisions vary widely across the school age population.

When the age of onset of loss is taken into consideration, there are those who were born with the hearing loss before acquiring speech (prelinguistic deafness) and those who have the condition after acquiring speech (postlinguistic deafness). The third classification which is the type of loss is concerned with the part of the ear with defects. Literature is not specific on the number of types. Some cite two (example Ysseldyke and Algozzine, 1995), others three (example Kirk et al, 2000). The third one which Kirk et al (2000) distinguish is a combination of the two of Ysseldyke and Algozzine. Using the three types what are distinguished are *conductive*, *sensorineural* and *mixed* hearing losses (Kirk et al, 2000). In conductive losses, there is usually a blockage of or damage to the auditory canal (Ysseldyke and Algozzine, 1995). This may be due to accumulation of some substance such as wax. The blockage prevents sound waves from reaching the inner ear. Individuals with this condition have listening difficulties and often confused in the class since they are unable to hear well. Sensorineural hearing losses occur when there is a defect in the inner ear (cochlea) or auditory nerves to make it impossible for the individual to perceive speech sounds at higher frequencies. The mixed is a combination of both conductive and sensorineural. In Ghana, there are a number of Audiology Clinics, most often attached to Hospitals and Institutions to assess hearing losses using pure-tone audiometry. An audiometer is an instrument used to test hearing acuity for information on conductive and sensorineural hearing losses. The Audiology Clinic in the University of Education of Winneba, for example, assesses hearing losses and makes recommendation for educational placement as well as classroom seating position.

Children with hearing losses usually have communication problems, social and behavioural difficulties. Besides, Kirk et al (2000) indicate they 'do not develop literacy skills commensurate with their intelligence' (p. 355). In teaching children with hearing losses mainstream interpreters are used. But in Ghana, there are a few of these interpreters and this is likely to affect how children with hearing losses are accepted for inclusive education. Besides, there is a debate on the method or mode of instruction in special schools. Some have argued that since the schools are designated Schools for the Deaf only sign language should be used. However, as we begin to shift from

segregation to inclusion, the use of sign language alone could affect how special education teachers participate in and contribute to the development of inclusive education in the country. If special education teachers can teach alongside the regular education teachers, then the use of Total Communication may be ideal. Total Communication is a technique employing the use of speech, finger spelling, lip reading and sign language.

The Office of Standard of Education (Ofsted) refers to visual impairment as a range of difficulties from minor impairment through to blind. Children with visual impairments, particularly the blind, form the smallest group of children with SEN. According to the U.S. Department of Education (1989), it is one of the least prevalent disabilities found in children. Definition of visual impairment is often legal and/or educational. Using the educational purpose, Ofsted finds a child to be visually impaired if the child requires either adaptations to the environment and/or physical support through the provision of vision aids and additional learning support in order to access the curriculum. Children whose vision is corrected by spectacles are often excluded from this definition. In other words, visual loss makes it impossible for a child to read printed text or material to necessitate the use of alternative means such as Braille. Kirk et al (2000) describe Braille as a system of touch reading with embossed characters in combinations of six dots on heavy paper. Reading is done with both hands.

The low vision on the other hand, has residual vision and requires sufficient light conditions, prescriptive lenses or optic aids to read large print (Deiner, 2005). The low vision can read when print is enlarged. Careful, clear labelling of material can be beneficial to them (Stakes and Hornby, 2001). In Ghana, there are two public special schools for the blind in Akropong-Akuapim and Wa, in the Eastern and Upper West Regions, respectively. There are also publicly designated mainstreamed institutions which they attend including Okuapeman and Wenchi Secondary Schools; University of Cape Coast; University of Ghana, Legon; and University of Education of Winneba.

In order to boost the inclusion of children with visual impairment in the mainstream, adaptations to teaching and materials and different teaching approaches are necessary. Deiner (2005) posits that children who are unable to see are reluctant to explore their world and they tend to rely on hearing instead of facial expressions to communicate with their environment. A major approach which is often mentioned in literature is familiarising them with their environment (Tuttle and Tuttle, 1996). This is

done through mobility and orientation training. By mobility it is meant moving safely and efficiently from one place to the other. Orientation has to do with familiarising the child to his or her environment. Tuttle and Tuttle define orientation as 'the ability to create and maintain a mental map of one's environment' (p. 21). Another strategy used for maximising the academic achievements levels of children with visual impairment is giving them extra time to respond to tasks since time is taken to connect words, people, activities, objects, experiences and even sentences (Harrison and Crow, 1993). Ysseldyke and Algozzine identify the biggest obstacle to the success of children with sensory disabilities to be attitudes. If attitudes are positive, they are 'able to take control of their lives' (p. 402).

Children with speech and language difficulties

Ofsted describes pupils with speech, language and communication needs as having difficulties in understanding and/or making others understand information conveyed through language. This is attributed to their speech being poor or unintelligible. Speech is the way sounds of oral language is formed and sequenced. Kirk, Gallagher and Anastasiow (2000) define speech as 'the systematic oral production of the words of a given language' (p. 307). Speech disorder occurs when there is a disorder in 'articulation (or phonological disorders), voice and fluency' (p. 308). Hunt and Marshall (2002) define articulation disorder as the inability to accurately and clearly produce sounds within words. For example, a child who says 'wabbit' instead of rabbit has difficulty with articulation. The American Speech-Language-Hearing Association, 1993, cited in Hunt and Marshall, 2002, p. 307) regards fluency disorders as interruptions in speaking. A good example is a child who stammers or stutters. Voice disorder occurs when there are dysfunctions in the oral and nasal cavities to affect the pitch, loudness and quality of voice (Hunt and Marshall, 2002).

Language, on the other hand, is an organised system of symbols used to express and receive meaning (Jusczyk, 1997). Using the nature of the disorder, Hunt and Marshall (2002) identify three types of language disorders. These are the *form* including phonology, morphology and syntax; *content* (that is semantics) and *use* (which deals with pragmatics). They explain phonology as how we combine phonemes or speech sounds in forming words. Morphology is how the meaning of words is changed by adding morphemes such as prefixes – *un*; *in*; *im* and suffixes – *less*; *ed*; *ly*.

Morphemes are the smallest units of words. Syntax is the rules for combining words to form sentences. Semantics is concerned with the meaning we give to words. Pragmatics refers to how, that is the context in which words are used. A pragmatic difficulty is encountered if a child, for example, is unable to use words appropriately. Kirk et al (2000) therefore define language disorder as 'the impairment or deviant development of comprehension or use (or both) of a spoken, written, or other verbal symbol system' (p. 308). Ofsted simply explains language disorder as a condition that makes it difficult for a pupil to understand and/or use words in context, use words wrongly with inappropriate grammatical patterns, have reduced vocabulary or find difficulty expressing ideas.

Communication difficulties are conditions that make it difficult for a child to use speech and language effectively and efficiently to express himself in an effortless way as his peers do (Dockerel and Lindsay, 2000). There are different types of children with speech and language difficulties an example of which is dyspraxia. Children who are dyspraxic are unable to programme their speech muscles to produce sounds for acceptable speech. These difficulties are said to affect 7.4% of the child population (Tomblin et al., 1997; Davis and Florian, 2004). QCA/DfEE (2001) stresses the importance in enhancing the communication of this group. It is seen as fundamental to their participation and achievement in all areas of the curriculum. Davis and Florian point out that approaches have moved away from task-centred, incrementally designed ways towards a more social constructivist stance. Conti-Ramsden and Windfuhr (2002) point out that these children could do well in the mainstream with additional support mechanisms. Law et al (2001) identify the support to include visual reinforcement strategies, working with other agencies and peer support.

Autism or autistic spectrum disorder (ASD) is described as a sub-group within the spectrum of autism. It is 'a physical disorder of the brain' (Ysseldyke and Algozzine, 1995, p. 423). Stakes and Hornby (2001) indicate that autism is commonly described as a 'triad of impairments' and identify the impairments as delayed language development, bizarre behaviour, and difficulties with social relationship. Ysseldyke and Algozzine (1995) also identify three difficulties but they related the problems with communication, thought processes, and attention' (p. 423). Ofsted's three categories difficulties of the difficulties related to:

- understand and use non-verbal and verbal communication

- understand social behaviour – which affects their ability to interact with children and adults
- think and behave flexibly – which may be shown in restricted, obsess ional or repetitive activities.

It can therefore be seen that children with autism have intellectual, communication, behavioural and social difficulties. These difficulties are 'lifelong' (Ysseldyke and Algozzine, p. 423). Autistic children vary in their academic performance; some do well, others do not do well. Stakes and Hornsby indicate that autistic children who are diagnosed as Asperger's syndrome are most often placed in mainstream schools for they are more able academically. In meeting their needs Jordan and Powell (1995, cited in Stakes and Hornsby, 2001, p. 27) suggest a structured classroom including the physical layout and a suitable framework for teaching through systematic and structured activities.

Pedagogy for children with SEN

Pedagogy is defined by Norwich and Lewis (2001) to encompass a wide range of variables about teaching. They give for example, sequencing of lessons, grouping arrangement, promotion of particular attitudes and selection of content. It is arguable if there is a distinct pedagogy for children with SEN. Though a number of SEN-specific strategies such as Hewett and Nind's (1992) interactive approaches have received attention in literature, there are indications that no SEN-specific pedagogy exists. Intensive interaction is an approach to help children with severe and complex learning disabilities to develop social and communication abilities. Norwich and Lewis (2001) conclude that there is a form of generic teaching which assume that 'what works with most pupils also work for all pupils' (p. 324). Wang (1990) identified the general methods of teaching as:

- instruction based on assessed capabilities of each learner;
- each learner able to progress at own pace;
- periodic evaluation of learner's progress by the teacher;
- learner acquires increasing responsibility for own learning;
- alternative learning activities available;
- learners have opportunities for choice / decision making; and
- learners assist one another.

Stainbach, Stainback, Stefanich, and Alper (1996) caution teachers not to assume that the general class curriculum is non-functional for some students. All students can benefit from it if the right approach is adopted. While it is important to

recognise individual difference in the diverse population in the class, Stainbach et al (1996) maintain that teachers must have the same goals for all the children in order not to isolate and segregate any child. This can be achieved if learning objectives are flexible to cater for the unique needs of all. They stress the importance of children to work at different activities on specific curricular learning objectives while providing for multiple adaptations. They also suggest the involvement of peers in the selection and organisation of learning experiences. Since some individual children may require extra help to cope with their environment, provision is made for the inclusion of functional skills to help them learn practical living, vocational, and social skills.

Thus, literature on 'special educational needs' has shown that a lot of controversy surrounds the terminology. The Green Paper on Excellence of education recognised the difficulty in defining the term 'special educational needs' Solity's (1991) argument is that the terminology only encourages discriminatory practices. Solity described these children as those 'teachers experience difficulty in teaching'. Though Gross supported this description, using research evidence, it appears the description has not been accepted universally. It seems the term 'special educational needs' (SEN) would for some time be used until a day when a better one is coined. It was said that children have SEN if they have a *learning difficulty* which calls for special educational provision to be made for them ((DfES, 2001). Children with SEN include children with intellectual difficulties, emotional and behavioural difficulties physical and health disorders, sensory disabilities and speech and language disorders. It was mentioned that a number of factors are considered in teaching children with SEN. It was also said that there are no SEN-specific pedagogy, but 'what works with most pupils also work for all pupils'.

Having considered the concept of special educational needs, the next chapter turns attention to the concept of inclusion. In the first chapter it was found that the Salamanca Conference held the belief that the key to developing the potentialities of children with special educational needs can be found in their inclusion in regular education.

CHAPTER THREE

INCLUSION

Introduction

Inclusion has been conceived as a new principle that challenges much of existing practice in the field of special needs education (Ainscow, 2000). There is a plethora of definitions for as Nind, Benjamin, Sheehy, Collins and Hall (2004, p. 260) saliently observe, inclusion is a much contested territory and not an 'easy task' (Naicker, 2005). Like the phrase inclusive education, there is a lot of debate in literature since different people conceive of it differently. In this chapter the following are reviewed:

- Definition of the concept of inclusion
- Inclusion versus segregation
- Models or framework of inclusion
- Levers for change

Definition of the concept of 'inclusion'

There has not been a universally accepted definition for the concept of inclusion (Pearson, 2005, p.17). According to Beveridge (1999, p. 57), it is open to 'differing interpretations'. Mitchell (2005) notes that inclusive education is a complex and problematic concept. There appears not to be a universally accepted definition of the concept (Mitchell, 2005) as different countries define the concept from their individual social and cultural perspectives. For example, Mitchell points out that Canada's federal charter's understanding is similar with the principles enshrined by the Salamanca Statement (UNESCO, 1994). However, in the USA, there is no official definition in spite of the fact that the country regards the concept to mean placing children with SEN in the general education. A number of definitions have been proposed for the concept of inclusion some of which see inclusion as 'mainstreaming' or 'integration'. There is an ongoing debate surrounding their connotations.

Consequently, Mitchell points out that the better way to understand the concept is to make a distinction between them.

Salisbury (1991) sees 'integration' as 'push in' (p. 147), while Proctor and Baker (1995) conceive of 'forcing' (p. 224) the child with SEN to participate in an existing structure. This means that in mainstreaming and integration the child has to adapt to fit into (Kunc, 1992) the regular education curriculum. Also, it means the child's needs and circumstances are used in determining what educational provision he or she receives. Hence, the school system 'remains largely unchanged' (Ainscow, 1995, p. 1). On the contrary, Kivirauma et al (2006) find the distinction bizarre since the push in or fit in description fails to fulfil or satisfy the 'democratic' (p. 119) aims of integration, of which equal treatment is a major goal in this connection. They put forward the argument that integration demands a change of paradigmatic viewpoint from the individual to the group. Thus, they see integration to be concerned with groups and school classes where the natural differences of pupils are accepted within everyday routines of the groups and classes.

'Inclusion' entails 'restructuring' (Ainscow, 1995, p. 1; Proctor and Baker, 1995, p. 224) or 'reconceptualising' (Deiner, 2005, p. 24) school to accommodate the child with SEN in regular education. In this definition, the school adapts or restructures (Kunc, 1992) to meet the needs of the child with SEN. In inclusion, the child's environment rather than the child adapts to make his adjustment in school possible and for learning to be seen to be taking place. I tend to support Deiner's (2005) view that the three concepts 'integration', 'mainstream' and 'inclusion' could be used interchangeably. But in supporting this view, it complicates the definition of inclusion since the child cannot be removed or separated from the groups or environment. The child influences and is influenced. It would therefore follow from the argument that inclusion is a broader term and takes into account several elements or principal features as Ainscow (2004) and Mitchell (2005) succinctly note.

<u>Principal features of the concept of inclusion</u>

In defining the concept of inclusion, Ainscow (2004) identifies four principal features or elements. On the other hand, Mitchell (2005) lists two of the principal features. Ainscow's four elements are:

- Inclusion is a process;
- Inclusion is concerned with the identification and removal of barriers;

- Inclusion is about the presence, participation and achievement of all students, and
- Inclusion involves a particular emphasis on those groups of learners who may be at risk of marginalisation, exclusion or underachievement.

Mitchell's (2005) principal features are:

- Entitlement to full membership in regular, age-appropriate classes in their neighbourhood schools;
- Access to appropriate aids and support services, individualised programmes, with appropriately differentiated curriculum and assessment practices (p. 4)

An examination of the respective elements shows the two authors do not differ much in what they understand to constitute inclusion. For, example, Mitchell's first feature can be explained in the context of Ainscow's third element, and the second, understood from the perspective of Ainscow's fourth. However, in discussing these elements, Ainscow's criteria are used.

Inclusion as a process

Inclusion is viewed as a process not a product, in that it requires a search for better ways to respond to diversity, living with difference, learning how to learn from difference, and valuing difference (Ainscow, 2004). It is an-ongoing, never ending activity exploring ways by which children with special educational needs can be well catered for and welcoming any measure that can make it fruitful to enhance the participation of all children. The document on 'Excellence for all children meeting special educational needs' (DfEE, 1997, p. 44) also regards inclusion as a process that allows pupils with special educational needs to whenever possible receive their education in a mainstream school and join fully with their peers in the curriculum and life of the school not a fixed state. In the UK, the Government Strategy for SEN indicates explicitly that:

> Inclusion is about much more than the type of school that children attend: it is about the quality of their experience; how they are helped to learn, achieve and participate fully in the life of the school (DfES, 2004, p. 25).

What the Government Strategy for SEN seems to be saying is that in the practice of inclusion, other services, which are 'different from' or 'additional to' what is there must be thoughtfully considered. Farrell and Ainscow (2002) contextualise inclusive education as 'the extent to which a school or community welcomes pupils as full

members of the group and values them for the contribution they make' (p. 3). This would mean that in the practice of inclusion, there can be no single approach prescribing what ought to be done. The best practice is the one that assures mutual interaction of all children in regular education without any regard to their physical, mental, social or emotional characteristics.

Inclusion as identification and removal of barriers

Inclusion is about creating equal opportunities for all irrespective of special educational needs or disabilities. It does not separate individuals for whom the curriculum is adapted. It focuses on the reconstruction and of curricular provision to help all children to succeed (Sebba and Ainscow, 1996). The Centre for Studies in Inclusive Education (CSIE) (2002) sees inclusive education as a continuing process of breaking down barriers to learning and participation for all children and youth. This involves 'tackling racism, homophobia and bullying' (Frederick, 2005, p. 19). It is a way to end discrimination and promote equal opportunities for all children. This may be regarded as imperative since children with SEN and disabilities are oftentimes discriminated against and excluded from the mainstream system. Inclusion should therefore aim at getting rid of any form of barriers.

Inclusion as presence, participation and achievement of all students

Considered from the backdrop of presence, participation and achievement of all students, Flem, Moen and Gudmunsdottir (2004, p. 95) refer to inclusive schools as 'fitting schools to meet the needs of all pupils'. All children, including those with disabilities learn together with their peers in the same physical environment (Mushoriwa, 2001) and seen as 'full-time participants' (Knight, 1999 cited in Mushoriwa, 2001, p. 142). Mitchell (2005) stresses the point that the child is entitled to full membership but recognises that the placement in regular classes should be age-appropriate. Thomas and Loxley (2001) see this type of placement as a right and argue that inclusion is not an issue of compulsory education for children with SEN, but instead, the right to participate in the common education.

Be that as it may, the extent to which governments have succeeded in achieving it remains questionable. The Audit Commission (2002) reports that in the United Kingdom, children with statements in the mainstream sector face barriers to learning. The report listed the barriers as 'inaccessible buildings and facilities; shortfalls in

specialist support; and exclusion from certain lessons or extra-curricular activities' (p. 24). This suggests that children with SEN and disabilities may not have the opportunity to participate actively in classroom activities.

Lewis (2000) argues that the education offered to children with SEN has not improved in spite of increase in inclusion. After the 2000 ISEC conference in Manchester, Lewis asked how far it was tenable to assume that education system as constituted at the time provided a healthy environment for all, and especially the vulnerable. The other issue Lewis (2000) left on the minds of all favouring inclusion to ponder over was the need to include the vulnerable and being hostile to them. These seem to suggest that those with SEN could be present but their participation and achievement may be a matter of chance and probabilities. Not surprisingly, the Audit Report (2002) points out that some are having a poor time and recommended for schools to have a sustained investment in staff and school facilities to make inclusion work for those with SEN.

Inclusion as marginalisation, exclusion or underachievement

The fourth element suggests a moral responsibility towards those groups of learners who may be at risk of marginalisation, exclusion or underachievement. Ainscow (2004) sees the need to monitor these groups carefully and where necessary, steps taken to ensure their presence, participation and achievement. If this element or feature can be realised, then, the issue raised in the second element of Mitchell (2005) is underscored since there is some amount of resonation. The child should have access to appropriate aids and support services, individualised programmes, with appropriately differentiated curriculum and assessment practices. Without these, the goals of inclusion may hardly be achieved. But Lewis (2000) further contends this idea by questioning the rationale behind getting same-aged groups of students to learn

> where the real achievements of the less able will never be recognised as they will always be below the artificial average of their peers and where their final efforts are bound to be degraded in the common exam system? (p. 202).

The foregoing seem to suggest that inclusion is a developmental approach addressing the learning needs of individuals vulnerable to marginalisation and exclusion, the type of educational arrangement that allows children with and without special educational needs to be educated in the ordinary school and classroom without any conditions of 'ifs' and 'buts'. However, inclusion goes a little beyond to include all the structures such as curricular organisation and provision (Sebba and Ainscow,

1996) put in place to ensure participation and progress. The Council for Exceptional Children (CEC) (1996) views inclusion to be problematic if time and resource allocation are poorly done. In the context of this study, therefore, inclusion is viewed not only as the kind of education that allows children with and without special educational needs and disabilities to learn together in the same classroom, but also additional services put in place to ensure their success. These services include regular and special education teacher collaboration in classroom teaching, teacher consultation, and resource room service. This is what the Government Strategy for SEN for UK seems to have implied in talking about 'how they are helped to learn, achieve and participate fully in the life of the school'. Deiner (2005) helps in this argument with the view that:

> successful inclusion involves placing children in an education setting that provides the support that meets children's emotional, social, and educational needs (p. 24).

Inclusion is therefore defined as the process whereby all children including those with SEN receive their education in the mainstream with structures in place to ensure participation and progress.

Inclusion versus segregation

It is debatable if inclusion benefits all children with SEN and disabilities. Elliott and McKenney (1998) find students of lower abilities benefited greatly from working co-operatively with students of higher abilities. Pupils in the mainstream become role models and serve as 'reference group' for them (Peetsma et al, 2001, p. 127). The reports of Baker et al (1995) and Lipsky and Gartner (1996) lead one to conclude that when children with SEN and disabilities are educated in regular or mainstream classes they do better than those in non-inclusive settings. They found that they do not only improve academically, but also behaviourally and socially. One of the benefits of inclusion is tacitly stated by Deiner (2005) when she said that 'From an early age, children need to become aware of individual differences and learn to respect these differences' (p. 455). What Deiner seems to be saying is that children can better interact and appreciate each other's abilities and contributions if opportunities are there for their early interactions.

In spite of UNESCO's (1994) call for all countries to include children with SEN and disabilities and welcoming any measure that can make regular education programmes and activities fruitful, some authorities argue that not all pupils with SEN

and disabilities are in the mainstream. The Audit Report (2002), for example, points out that the trend towards inclusion has been gradual and that in England a significant proportion of children with SEN and disabilities continues to be educated in special schools funded by the Local Educational Authorities (LEAs). The Audit Report (2002), states categorically that:

> contrary to public perception, the move towards inclusion of children with higher levels of needs into mainstream education has progressed very slowly with only a gradual reduction in the special school population over the last decade (p. 18).

A number of interlocking factors may be responsible for this development. There is lack of capacity of mainstream schools to meet the needs of children with SEN and disabilities. For example, Carlberg and Kavale (1980) put up the argument that some children with SEN and disabilities do better in special education since they may experience problems in reading when placed in inclusive settings (Klingner et al, 1998). Also, there is the issue of parental attitudes since some parents who have children with SEN and disabilities deliberately choose special schools for their wards due to fear of negative school attitudes. Okyere (2003) reports that some parents who do not have children with SEN and disabilities would not like their children to learn alongside persons with SEN and disabilities in the same classroom due to negative beliefs. Would this mean that some children with SEN and disabilities may need segregation if they can develop their capacities and be useful to themselves and others?

Segregation connotes separation, but in this context, it describes the type of educational provision in which individuals with SEN and disabilities receive their education and training in separate environments (Cartwright et al, 1995) such as special schools. This practice of excluding children with SEN and disabilities from regular schools does not make it possible for them to benefit 'from the cultures, curricular and communities of local schools' (CSIE, 2002). In segregating, societies consciously and categorically set up schools or institutions sometimes at the outskirts of settlements and train up teachers to manage them in these environments. Traditionally, the belief has been that since specially trained teachers teach in this type of educational environment, the needs of children with SEN and disabilities could be better met to boost their psychosocial development and self-confidence level (Peetsma et al, 2001). However, individuals segregated are usually labelled and discriminated against. Labelling is the situation where an individual is tagged as a result of a disability. It is argued, for instance, that labelling fails to develop the individual's self-

esteem (Kilgo et al, 1996). Gargiulo and Kilgo (2000) further raise more concerns by arguing that labelling tends to bias and prevents educational systems from planning programmes for the labelled.

Seemingly, the role schools and homes play in the classroom is critical in this argument. If teachers and parents with support from government are willing to support the children even in small steps, some improvements can be made. But if they are not, it would rather be a draw back to their development. It would push them further behind to increase their predicament. It may not be in the children's interest if supporters of inclusion only think of their rights to be in the mainstream classroom without thinking of the support structures that should be available to them. As a result, several research studies draw out the importance in implementing inclusion carefully (Waldron and McLeskey, 1998; Scruggs and Mastropieri, 1996). For example, the Audit Report (2002) identifies some strategies to make the shift from segregation to inclusion smooth. The Report lists three main strategies namely:

- An analysis of current pupils' needs (that is it must be needs-based)
- Setting a time-table to develop mainstream capacity to meet the needs of children currently educated in the special sector
- Setting out clearly the future role of special schools which should include the promotion of partnerships working between mainstream and special schools.

Models or framework of inclusion

Model was explained as 'a theoretical account or framework or a hypothetical description of a complex entity or process' (Miller, George, Word Net Search 2.1 http://wordnet.princeton.edu/perl/webwn?s=model). A framework is defined as 'a system of rules, ideas or principles that is used to plan or decide something'. (Web www3.gov.ab.ca/env/air/Info/definitions.html). In this sense, the two concepts can be used interchangeably and explained to mean ideas and/or principles for inclusion.

A number of models or frameworks have been proposed to guide the development and implementation of inclusion. Three of them are reviewed. These are Giangreco's, (1997) model, Lewis and Norwich (1999) model, and Ainscow's (2005) framework.

Giangreco's (1997) model

Giangreco (1997) provides an inter-related model which involves educators, parents and other professionals. Giangreco indicates that in any school that inclusive practice has been a success story, some key factors interact. These factors are:

- Collaborative teamwork;
- A shared framework;
- Family involvement;
- General educator ownership;
- Clear role relationship amongst professionals;
- Effective use of support staff ;
- Meaningful Individual Education Plans (IEPs); and
- Procedures for evaluating effectiveness

Giangreco's model recognises the importance of interaction between educators, parents and other professionals. More important, it recognises the roles professionals can play in the process of developing and implementing inclusion, hence the need to clarify their roles. However, in this relationship, it is not clear what was meant by 'general educator ownership' since on the surface, the meaning seems to imply that educators have certain administrative powers or authority that could be used arbitrarily. Giangreco's model also does not provide information about the role of government in the practice of inclusion. National goals must be set to promote the growth and development of inclusion. While recognising general educator ownership, for example, if there is lack of political will or government backing to institute laws on inclusion, the likelihood is there for government to support inclusion rhetorically.

Lewis and Norwich (1999) model

This model is an attempt to use children's needs to determine the way in which inclusion should be approached. They identified three types of needs namely:

- Needs that are common to all (for example, motivation);
- Needs that are common to some, but not others (for example, hearing impairment); and
- Needs that are unique to an individual (for example, complex needs).

The first type of needs is the responsibility of all teachers but the subsequent ones demand increasing levels of expertise. While in the first type possibility exists for all teachers to deal with children with SEN and disabilities in the mainstream, in the two others, doubts arise as to the roles the regular education teacher can play in facilitating their inclusion. In the third type where the need is unique and seemingly complex,

Mitchell (2005) drives home the point that children with this type of need may be denied inclusive education. Mitchell argues that in some countries one of the reasons why children with SEN are denied access to inclusive education stems from the severity of the disability.

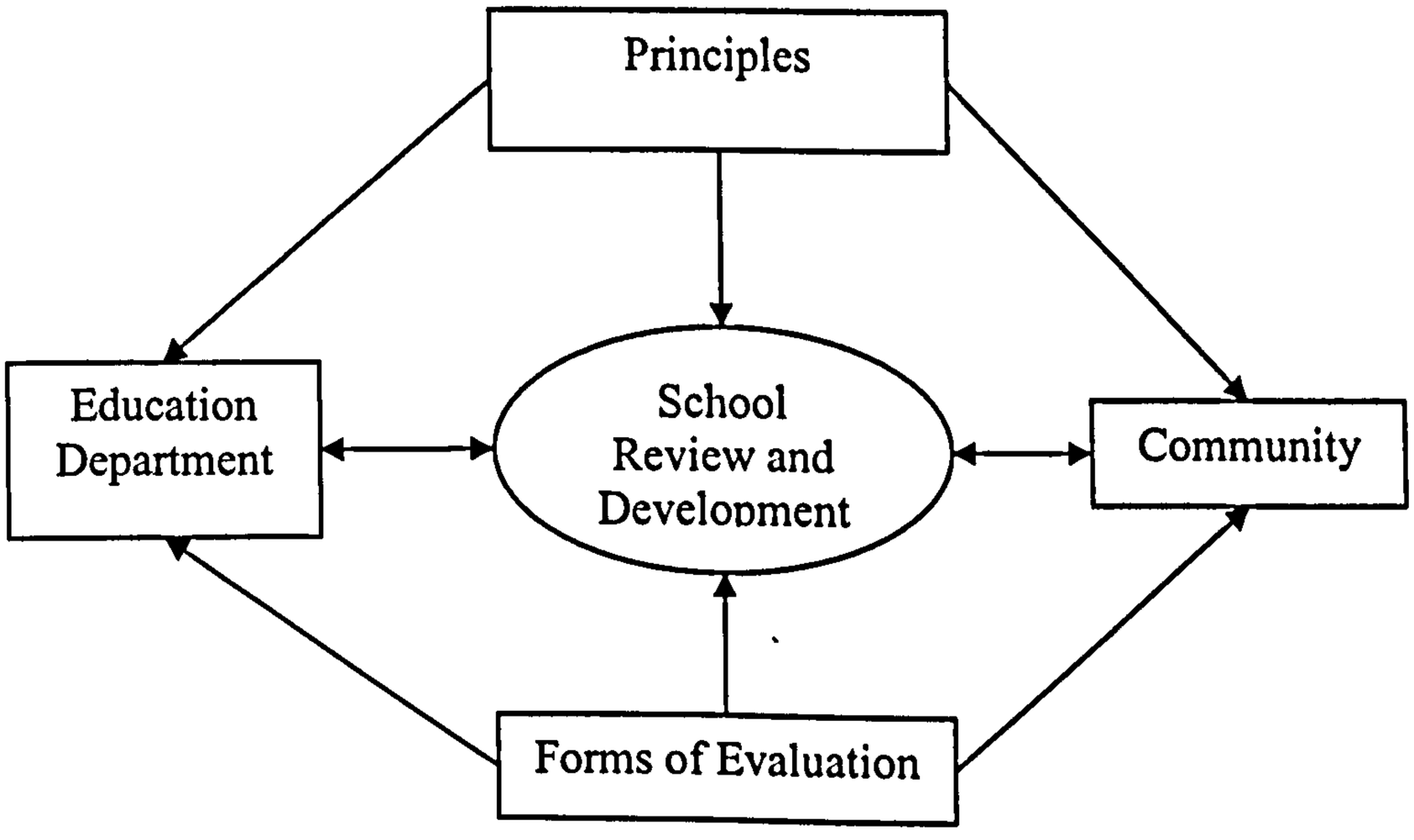
Ainscow's (2005) framework

Ainscow (2000) had proposed six strategies that could be used to develop and push inclusion practice forward and identified them as:

- Starting with existing practices and knowledge
- Seeing differences as opportunities for learning
- Scrutinising barriers to participation
- Making use of available resources to support learning
- Developing a language of practice
- Creating conditions that encourage risk-taking.

However, a few years later, Ainscow refined his ideas. In a paper presented on 30th September 2004 (Ainscow, 2005) on 'Developing an Inclusive Education System: What are the levers for change?' in Leeds, United Kingdom, Ainscow (2005) (see figure 5) placed School Review and Development at the centre in pushing practice forward. He saw the school to be central if inclusion could be developed and sustained in helping to develop an increasingly diverse range of learners.

Figure 3.1: Ainscow's (2005) framework



In the second framework, Ainscow (2005) draws attention to the principles that guide policy priorities within education system; the views and actions of others within the local context, including members of the wider community that the school serves and the staff of the departments that have responsibility for the administration of the school; and the criteria that are used to evaluate the performance of schools. In this framework, Ainscow did not tamper with the language of practice but emphasised the importance of the use of a common language to encourage colleagues to talk to one another and indeed to themselves about detailed aspects of their practice (Ainscow et al, 2003). He noted that 'without such a language teachers find it very difficult to experiment with new possibilities'.

Ainscow's (2005) framework has a lot to offer in pushing practice forward. Nevertheless, the framework does not give sufficient information on how School Review and Development affects Principles. Again, there is lack of information on how the other variables or factors interrelate. Apart from placing a huge responsibility on Schools, the framework does not clearly show how the Principles are derived since the Education Department and the Community apparently have no influence on the principles. The researcher questions how inclusion can be practical if communities, for instance, cannot exert any influence on principles. In Ghana where societal prejudices abound, it would obviously be worrying if communities do not have any influence on principles that guide inclusion. Besides, there is no information about what contributions governments can make in supporting inclusion. It is common belief among many teachers in Ghana especially special needs education teachers that inclusion can successfully take off if legislations and SEN Code of Practice as exist in the UK are available. They think a way could be opened for all teachers including those in regular education to develop positive attitudes towards children with SEN and disabilities in the country and to collaborate in developing their potentialities. The researcher wants to assume that Ainscow's (2005) framework is feasible where government's commitment exists as it is in the case of the UK. But if government's attitudes are seemingly rhetorical, much more would be needed.

In sum, there are differences in how the various theorists approach inclusion, yet put together they provide a firm foundation and understanding of how inclusion could be conceived, developed and implemented.

Levers for change

Inclusive education may sound laudable in principle, but in practice, it may be difficult to achieve. Senge (1990) regards levers as 'actions that can be taken in order to change the behaviour of an organisation and those individuals within it' (p. 4). In the context of this study, these actions have to do with how teachers can change their behaviour towards children with SEN and disabilities in order to improve interaction between them and to make their inclusion a success. This may mean that for changes to be effected deliberate decisions and actions need to be taken. In reviewing literature in this area, the researcher focused attention more on the UK system since he was quite familiar with prevailing conditions and the positive steps the country is taking towards inclusive practice. Elliott and Mc Kenney (1998) recognise the swing of the pendulum in education and note overtly how many educators have broken new ground regarding the rights of students with disabilities. They are particularly thrilled about how this process of breaking new ground has brought unspoken beliefs and feelings to the surface.

<u>UK Education Reform Act 1988 and the 1997 Green Paper</u>

Evidence from the UK points out that prior to the Salamanca Statement in 1994 that highlighted the importance of inclusion, the Education Reform Act 1988 had introduced a quasi-market style of school system that had led to increased tendency for mainstream schools to become less well-disposed and tolerant of students with disabilities, with difficulties in learning and with behaviour difficulties (Lunt and Norwich, 1999). The 1997 Green Paper on 'Excellence for all children Meeting special educational needs' (DfEE, 1997) was developed to correct the anomalies that arose from the Education Reform Act 1988 and to facilitate the process of inclusion. The DfEE (1997) reports that:

> We want to see more pupils with SEN included within mainstream primary and secondary schools. We support the United Nations Educational, Scientific and Cultural Organisation (UNESCO) Salamanca World Statement on Special Needs Education 1994. This calls on government to adopt the principle of inclusive education, enrolling all children in regular schools, unless there are compelling reasons for doing otherwise. This implies a progressive extension of the capacity of mainstream schools to provide for children with a wide range of needs (p. 44).

This document was monumental for the UK began to commit herself to the United Nations Educational Scientific and Cultural Organisation (UNESCO) and the

Salamanca World Statement on Special Needs Education (1994) tenets. According to Dyson (2005) the New Labour government set itself the task of giving premium to the needs of individual children and a commitment to seek for specialist provision for children who could not benefit from mainstream programmes. According to Attfield and Williams (2003, p. 29) one of the challenging agenda for change at the national level was founded on:

- a recognition that roles and relationships between special and mainstream schools had to change to provide partnerships and flexible programmes of learning, a 'new role for special schools' and a progressively extending role for mainstream schools.

More important, specialist provision was to be seen as an integral part of overall provision that aimed wherever possible to return children to the mainstream and to increase the skills and resources available to mainstream schools. Furtherance to this, the government's Green Paper addressed issues related to policies for excellence; working with parents, and planning SEN provision among others. In order to promote inclusion, measures taken included:

- Requiring all children to be registered on the roll of the mainstream school supported as appropriate by specialist provision;
- Targeting specific grants towards measures which will enhance mainstream schools' ability to include pupils with special educational needs. Grants could be earmarked for disability awareness training and special educational needs specific training of teachers and others in mainstream schools;
- Seeking ways of celebrating the success of those schools which improve their ability to provide for a wide range of special needs;
- Giving some priority for capital support where possible to planned school reorganisations which would enhance special educational needs provision in mainstream schools (pp. 46, 47).

Thus, the Green Paper made provision for a National Curriculum where all pupils including those with special educational needs and disabilities could benefit from a broad and balanced curriculum. It was seen that this could help all children to progress and demonstrate achievement.

Index for Inclusion (2000)

In order to widen access and to create equal opportunities for all children of school going age to develop their potentialities, in March 2000, the Index for Inclusion (Booth, Ainscow, Black-Hawkins, Vaughan and Shaw, 2000) was launched with the support of government and widely circulated to the 26000 primary, secondary and

special schools and all the Local Educational Authorities in England). Apart from this, the materials guide schools in three interconnected dimensions namely, 'creating inclusive cultures', 'producing inclusive policies' and 'evolving inclusive practices' (CSIE http://inclusion.uwe.ac.uk/csie/index-inclusion-summary.htm; Norwich, Goodchild and Lloyd, 2001).

Even though the index is being tried in a number of countries, doubts arise as to how efficacious it would be in a country such as Ghana. Inclusive practice requires adequate funding to procure teaching and learning materials. In terms of infrastructure and resources to support inclusion, schools in England are better placed. They, in no way, compare with Ghana's where there is lack of resources and qualified staff to implement change. Even the qualified teachers have beliefs which negate inclusion (Okyere, 2003; Avoke, 2001). Secondly, even though there are School Management Committees formed in the schools, the extent to which they are effective in their roles is yet to be ascertained. The second issue relates to how the index is to be applied. It is intended to be used flexibly by individual schools through self-initiative by groups of schools working together and with Local Educational advisory staff. This condition may be based on the assumption that there are internal initiatives or policies that allow local educational authorities to participate effectively in school decisions. In the UK, Croll (2001) identified issues such as the expertise and attitudes of mainstream teachers, the curricular and physical provision available in schools, the organisation of teaching and learning in schools, resource provision both within schools and across their local educational authorities (LEAs) and the various pressures on schools created by national assessment procedures, inspection and pressures for school improvement.

SEN Code of Practice and SEN Toolkit (DfES, 2001)

Since the development of the Index there have been a number of other initiatives aimed at facilitating and improving the process of inclusion and helping teachers to effectively accommodate children with SEN and to assist the child with SEN make a successful transition to adulthood. A typical one is the Special Educational Needs Code of Practice (DfES, 2001) and its Toolkit (DfES, 2001) which came into effect in January 2002 (DfES, 2001; Skidmore, 2004, p.12). Skidmore points out that the DfES 2001 Code of Practice was a revision of the Code of Practice on the Identification and Assessment of Special Educational Needs which was

introduced in England and Wales as a result of the 1993 Education Act. In the Section 7 of the revised Code of Practice, provisions include:

- a stronger right for children with SEN to be educated at a mainstream school;
- working in partnership with parents;
- pupil participation;
- working in partnership with other agencies.

The Code makes provisions for *School Action, School Action Plus* and *Statement* in managing children with SEN and disabilities. In Section 8, the SEN Code of Practice recommends that schools and LEAs should adopt a graduated approach through School Action, School Action Plus and Statement. School Action (SA) simply denotes the action a school takes upon identifying a child's SEN. The difficulty may be found in the child's inability to develop literacy or mathematics skills; presenting persistent emotional and behavioural difficulties; having sensory or physical problems; or having communication and/or interaction difficulties. Though the home can contribute to SA by providing information to the class teacher and Special Educational Needs Co-ordinator (SENCO), much of the action is limited to the school, not the home. The teacher is statutorily required to inform the SENCO about the child's SEN and to devise interventions that are additional to or different from those provided as part of the school's usual differentiated curriculum offer (DfES, 2001). By additional to or different from it simply means adding certain activities to or removing some activities from the curriculum to enable the child benefit from classroom experiences. The SENCO reviews teaching style and child's ability to access the curriculum and makes recommendations on accommodation. In the process of reviewing these, the class teacher is expected to work with the child on daily basis, plan and deliver an individualised education plan (IEP) while the SENCO plans future interventions for the child in discussion with colleagues. What is unique about SA, is that parents are not left out but are constantly kept informed of the action taken for the child to achieve.

In School Action Plus (SAP), parental involvement is crucial since parents have to assist the school to meet the child's needs. SAP takes place when SA fails to meet child's needs. SENCO and class teacher consult the child's parents for permission to engage external services. Specialists are called to render support. As a result of the additional services that may be received, additional or different strategies to those at School Action are put in place.

The Statement is concerned with identification of the child's current difficulties and strategies to meet them. The Statement is supposed to clearly define the nature and severity of the difficulties and their implications. The statement has to explicitly specify all the provision necessary for Local Education Authorities (LEAs) and schools to meet the needs. For example, the facilities and equipment, staffing arrangements and curriculum must be specified as well as indicating any appropriate modifications in using the National Curriculum.

The SEN Code of Practice is remarkable because it recognises that 'all teachers are teachers of children with special educational needs' (p. 44) and they are required to plan from the National Curriculum programmes of study, using all the available flexibilities. The National Curriculum is a statutory requirement for all maintained schools that sets out areas and content of learning in each key stage. It secures access to areas of learning and provides for the development of the knowledge, understanding and skills that children in the primary sector should have access to the National Literacy and Numeracy Strategy Frameworks alongside the National Curriculum. In the Inclusion Statement of the National Curriculum three key principles are stressed:

- setting suitable learning challenges
- responding to pupils' diverse needs
- overcoming potential barriers to learning and assessment for individuals and groups of pupils (p. 47).

Teachers are required to look carefully at such matters as classroom organisation, teaching materials, teaching style and differentiation to help the child learn effectively. More important, provision for a child with special educational needs should match the nature of their needs; there should be regular recording of a child's special educational needs, the action taken and the outcomes. Section 5:37 identifies the key to meeting the needs of all children to lie in the teacher's knowledge of each child's skills and abilities and the teacher's ability to match this knowledge to finding ways of providing appropriate access to the curriculum for every child. In other words, teachers' ability to plan effectively for a child with SEN depends on their knowledge of the child's abilities. Since the introduction of the National Curriculum, teachers are required to make provision for increased curriculum differentiation, curricular adaptations, and pastoral or disciplinary procedures based on the strengths and weaknesses of a child. But the extent to which teachers have achieved these is often disputed as the following example of Skidmore (2004) demonstrates.

> Relatively little attention, however, has been paid to the whole way of thinking about pupils' difficulties in learning upon which the approach of the Code is built, the assumptions and presuppositions which it embodies about the nature of these difficulties, and the way in which teachers and others should respond to them (p. 13).

This observation may be considered from the grounds that the SEN Code of Practice is unable to indicate precisely what schools or teachers or Local Educational Authorities are to do in making decisions affecting the development of the chid with SEN.

The Government Strategy for SEN (2004)

One would have thought that with all the initiatives and support given to inclusion, England would rapidly move to the path of inclusion. This has not been the case for as Dyson (2005) points out, minority of children continue to be educated in special schools and that in certain parts of the country, children are ten times more likely to be found in special schools. Dyson (2005) points out that the National figure is about 1.1 per cent and that overall the special school population fell slightly from 97,700 in 1999 to 93,900 in 2003 (National Statistics, 2003). These are pointers to the fact that inclusion is difficult to achieve.

Government assessment of the impact of the SEN Code of Practice revealed that teachers spent a disproportionate amount of time on 'bureaucracy'. There appeared to be too much paper work since Statements had to be written for some children. In removing this barrier, Section 1.23 of 'Removing Barriers to achievement: the government strategy for SEN' (DfES, 2004) proposed four key issues to be tackled. These were:

- Carrying out Annual reviews effectively and excluding those not involved in the child's education and support
- Ensuring sound arrangements for monitoring children's progress in conjunction with the child and their parents and not making it a statutory requirement for teachers to keep elaborate Individual Educational Plans for all pupils
- Dealing with paper work electronically through the use of ICT
- Saving time and using resources more effectively by developing protocols that enable professional staff working with the same child to have access to the same records wherever possible and work within a common framework.

The Government Strategy was to prevent individual schools from working independently or in isolation or competing against each other and instead encourage the use of partnership approach between:

- The local authority
- Between schools
- With health and social services, and
- With Voluntary organisations

Understandably then, these initiatives by the government were aimed to correct lapses, boost the practice of inclusion and ultimately achieve a broader educational reforms. While these initiatives appear to contribute to inclusive practice, Senge (1990) argues that they tend to change the way things look but not the way they work. Ainscow (2005) notes that policy documents, conferences and in-service courses do not lead to significant changes in thinking and practice.

Factors influencing teachers' attitudes to inclusion

Research literature suggests attitudes are influenced by interplay of certain factors in teaching children with SEN and disabilities. The following are reviewed: type of disability and attitudes; gender and attitudes; age research attitudes; teacher qualification and attitudes to inclusion; teacher experience and attitudes to inclusion; teachers' knowledge and attitudes to inclusion; location of school and attitudes to inclusion; and funding.

Type of disability and attitudes

Studies suggest strongly that inclusion is affected by the kinds of student educational needs and the degree to which teachers can be involved in the process (Booth and Ainscow, 1998; Avramidis, Bayliss and Burden, 2000; Moltó, 2003). Gray (1997, p.155) opines that before planning for a child's individual needs, consider the current capabilities and the potential of all pupils in the class. Gray further indicates an understanding of the disability and the likely effect of that disability on the child and other children in the class. The type, nature and severity of disabling condition and intellectual competence seem crucial to teacher attitudes. Literature suggests that the more severe a disability, the less teacher acceptance (Barnatt and Kabzems, 1992). Most studies indicate teacher preference for children with physical and medical health difficulties over those with mental difficulties and emotional and behavioural difficulties (Alghazo and Gaad, 2004; Forlin, 1995). The type of the disability and the demands it makes on the teacher influence teacher attitude (Mushoriwa, 2001). Center and Ward (1987) reported that regular teachers prefer children whose characteristics do not require extra instructional or management skills. There is the tendency for teachers

to reject students with significant disabilities (Avramidis, Bayliss and Burden, 2000) for the severity of disability affects perception and expected educational outcomes.

Gender and attitudes

It may be possible for gender to influence attitudes to inclusion. Avramidis et al (2001), for example, report that female teachers had more positive attitudes to children with SEN and disabilities than their male counterparts. But the extent to which this finding is global is yet to be ascertained.

Age research and attitudes

A number of studies have shown that younger teachers are more supportive of integration (Center and Ward, 1987; Clough and Lindsay, 1991) and Avramidis et al (2000) assume that newly qualified teachers hold positive attitudes to inclusion. These findings are reported from western countries where support for inclusion is pronounced. It appears whenever governments provide support to the development and implementation of inclusion, young teachers tend to have positive attitudes. However, the extent to which this finding applies to countries where rhetorics abound is yet to be ascertained hence, requires an investigation.

Teacher qualification and attitudes

There is lack of unanimity in literature on the part qualification plays on teacher attitudes to inclusion. Gersten and Woodward (1990), for example, argue that SEN competencies and skills are essential to accommodate children with SEN and disabilities. It is again reported by Trendall (1989) that more female teachers with lower qualifications underwent more extreme levels of stress. Thus, higher qualification is associated with reduction in a teacher's stress level in teaching children with SEN and disabilities. Norwich and Lewis (2001) found no SEN-specific pedagogy in teaching various ranges of children with SEN and disabilities but recognised that 'more intensive and explicit teaching is relevant to pupils with different patterns and degrees of difficulties in learning' (p. 325). While these may highlight the importance of training, Murphy (1996) reports that of the 22% of teachers in inclusive classroom who said they had received special training, just half thought the training was relevant in meeting the needs of children with SEN and disabilities. This would therefore be investigated in the study.

Teacher experience and attitudes

There appears to be a controversy on the role of teacher experience and inclusion. Some researchers think experience is vital for inclusion to be possible (Villa et al, 1996). We find the following: the Pine Grove results of Ellins and Porter's (2005) study was statistically significant pointing out that the experience teachers' have of SEN positively influences attitudes. Avramidis et al (2000) reports that teachers' experience has positive effects on inclusion and that teachers who have implemented inclusion programmes and therefore have active experience were more positive about inclusion. The study of Alghazo and Gaad (2004), shows that the acceptance level of teachers of the United Arab Emirates increased with increasing experience. The findings of Beh-Pajooh (1992) and Shimman (1990) show that college teachers who had been trained to teach students with learning difficulties expressed more favourable attitudes and emotional reactions to students with SEN and their inclusion than did those who had no such training. It was even reported that teachers' negative attitudes at the beginning of an innovation such as inclusion may change as they gather experience and expertise in the course of implementation (LeRoy and Simpson, 1996). There is also an indication that special education qualifications acquired from pre-or in-service courses led to less resistance to inclusive practices (Center and Ward, 1987; Clough and Lindsay, 1991). Soodak, Podell and Lehman (1996) report that teachers with low teaching efficacy and experience were less receptive to teaching children with SEN and disabilities in the mainstream.

However, some research do not support the hypothesis that teacher experience is vital for inclusion due to the stress involved in teaching children with SEN. Typical ones are Stephens and Braun's (1980), and Forlin (1995) and Gilada et al (2003). In these studies, teachers who had taught for several years were less supportive of inclusion. Chen and Miller (1997) and Wisniewski and Gargiulo (1997) report that teachers are experiencing psychological and physiological symptoms of stress in their workplace. Trendall (1989) finds that teachers with five to ten years teaching experience were more highly stressed than older teachers with so much experience.

Teachers' knowledge and attitudes

Evidence from research literature strongly supports teacher knowledge and expertise to meet the needs of children with SEN and disabilities (Gersten and Woodward, 1990) in the general education environment. Without knowledge and

expertise placing children with SEN will not automatically guarantee their success (Wilson, 2003). Farrell and Ainscow (2002) and Jupp (1992) have succinctly argued that if the regular or general education teacher lacks the requisite competence to accommodate the child, not much can be gained in the mainstream. Mawutor and Hayford (2000) in ISEC 2000 (http://www.isec2000.org.uk/abstracts/papers_m/mawutor_1.htm) express concern about the number of teachers in Ghana with knowledge of SEN and indicated in a report for ISEC 2000 that only a few of their teacher respondents had knowledge in special education principles and methodologies in Ghana. Research literature has not fully answered the question on the extent to which knowledge gained about children with SEN and disabilities from training, in-service programmes and reading literature on SEN promote acceptance of children with SEN and disabilities and developing their potentialities in the practice of inclusion. The answer seems controversial for McKleskey, Henry and Axelrod (1999) find training and education to be critical for successful implementation of inclusion programmes.

Vaidya and Zaslavsky (2000), for instance, indicate that knowledge is crucial for developing positive teacher attitudes toward the concept of inclusion. Scott, Vitale and Masten (1998) and Scruggs and Mastropieri (1996) find teachers to perceive instructional adaptations advisable and necessary but experience difficulty in implementing them in the regular classroom. This may mean that mainstream teachers may have the knowledge, yet, be unable to plan to teach adequately children with SEN and disabilities. However, Cornoldi, Terreni, Scruggs and Mastropieri (1998) argue that teachers may favour inclusion without feeling they have had training. Knowledge is a vital component in decision making. Consequently, Esposito (Esposito http://www.integrativepsychology.org/articles/vol4_article3.htm) suggests investigation into the exact influence of training in the establishment of positive attitudes to inclusion and its implementation.

Location of school and attitudes

It is not clear the influence the location of school, whether urban, semi-urban or rural, exerts on teacher attitudes to inclusion. O'Donoghue and Chalmers (2000) report that in rural and remote areas of Western Australia where education support and facilities were not available, teachers accepted children with severe or profound intellectual disability. In contrast, Avramidis et al (2000) examined the area of school,

but did not find any to be significantly related to the respondents' attitude. One major implication of the findings of O'Donoghue and Chalmers is that whenever education support and facilities are within reach, children with severe or profound intellectual disability are not likely to be accepted. Will this mean, for instance, that in most urban-based schools where education support and facilities are available, teacher attitudes would be poor?

Funding

Artiles and Dyson (2005) note that financing and support of educational services for SEN is a primary concern since other sectors of the economy compete for attention. Artiles and Dyson expressed much concern for economically poorer countries where special education has never been fully developed and regular education desperately lacks in resources. In Ghana the Annex 2 (Casely-Hayford and Lynch

http://imfundo.digitalbrain.com/imfundo/web/papers/sen_phase2/SEN%20PHASE%204%20FINAL.doc) recognises that one of the greatest concerns in creating and developing inclusive education has been financing. It was reported that resources were woefully inadequate and funding earmarked for the sub sector was insufficient. The special needs sector is reported to have received less than 0.4% to run its entire programme of the Medium Term Expenditure Framework (MTEF) budget estimates for Ministry of Education. The majority of the funding was used to provide institutional care in the form of food for children in special schools leaving nothing to create and support the development of inclusive education programmes for children. If inclusion can be pursued to the benefits of children with SEN, then funding should be available to develop and improve inclusive education in the country.

In the foregoing review the point has been made that inclusion is a much contested territory since an absolute definition seems elusive. However, Ainscow (2004) and Mitchell (2005) have attempted to solve the definitional hurdle by setting up some criteria involving a process; identification and removal of barriers; presence, participation and achievement of all students; and marginalisation, exclusion or underachievement. It is therefore seen that inclusion is not a by product of some educational initiative or thought but rather a process or a developmental approach. It is an educational initiative that requires proper planning and implementation. If effectively carried out, the benefits of inclusion seem to be tremendous to include

academic, behavioural and social improvements. Three inclusion models proposed by Ainscow (2005), Lewis and Norwich (1999) and Giangrego (1997) were reviewed. While variations existed in their respective approach, it was said that put together the three conceptual models provide a firm foundation and understanding on designing, implementing and pushing inclusion forward. A lever was explained as actions taken to change the behaviour of an organisation and those individuals within it. Using the United Kingdom as a case study, the point was made that measures to bring change have included the Green Paper on excellence of education for all learners, the development of Index for Inclusion and SEN Code of Practice and SEN Toolkit. Yet, a minority of children continue to be educated in special schools in certain parts of the country. One of the keys to meeting the needs of all children was identified to lie in teachers' knowledge of each child's skills and abilities and their ability to match this knowledge to finding ways of providing appropriate access to the curriculum for every child. Other measures have been an identification of obstacles to inclusion and robust action conceived to address them. The UK's experience demonstrates how laws such as the SEN Code of Practice, a SEN-sensitive National Curriculum, inter-agency involvement, and government support through various initiatives are necessary for inclusion to be successful. But can these alone lead to inclusion? What about the beliefs and attitudes teachers hold for children with SEN and disabilities? How are they formed and how do they affect the way teachers relate with children with SEN and disabilities and their inclusion in the mainstream?

CHAPTER FOUR

BELIEFS AND ATTITUDES

Introduction

There is an increasing number of studies reporting on beliefs and attitudes and how they affect inclusive practice (Moltó, 2003; Avramidis and Norwich, 2002; Mushoriwa, 2001; Avramidis, Bayliss and Burden, 2000). Research on beliefs and attitudes reveal that they are separate but interlocking and seen to form a functionally integrated cognitive system to lead to behavioural change (Rokeach, 1970). Festinger (1957) refers to 'cognition' as the knowledge one has towards oneself or one's environment. It may not be unusual to hear reference made to attitude when, in fact, the issue being referred to relates to belief. Attitudes have both 'affective' and 'cognitive' dimensions. Zimbardo and Leippe (1991) see the cognitive aspect to encompass beliefs and knowledge and the affective part to be made up of feelings and emotions. The following are reviewed:

- The concept and formation of beliefs
- Types of beliefs
- The concept and theories of Attitude

The concept and formation of beliefs

A belief is regarded as any simple proposition, conscious or unconscious, inferred from what a person says or does. As a concept, it cannot be directly observed (Rokeach, 1970), but generally perceived as a representation of mental state which takes the form of propositional attitude (Myers, Margaret, Knowledgerush Search http://www.knowledgerush.com/kr/encyclopedia/Belief/). This proposition is assumed to be small units of thought that expresses meanings or content. Each belief within an attitude organisation is composed of three variables namely: cognitive, affective and behavioural parts. Rokeach (1970) identifies the cognitive part to represent one's knowledge about what is true or false, good or bad; desirable or undesirable. The affective dimension is responsible for arousing affect or emotions or feelings of varying intensity around the object of the belief. Rokeach further maintains that the

affective component will not become manifest under all conditions until the belief is challenged by the attitude object or by someone else or what the individual is predisposed to is blocked somehow. Thus, the position of the affect can be positive or negative when its validity is seriously questioned as an argument. Lastly, the behavioural part deals with the actions that occur as a result of the beliefs and/or feelings. Fishbein and Azjen (1975) define belief as 'the subjective probability of a relation between the object of the belief and some other value, concept or attribute' (p. 131). Fishbein and Azjen (1975) further indicate that 'a person's beliefs represent the information he has about himself and his social and physical environment' (p. 135). Rosenberg and Hovland (1960) describe belief as a set of cognitions about a person. Belief may therefore be seen as the concepts a person has formed about an object which can be true or false.

Fishbein and Ajzen (1975) identify three major ways by which beliefs can be formed. These are 'descriptive' 'inferential' and' informational'. The descriptive occurs when a person has had a direct experience with the belief object. The inferential is based on prior descriptive beliefs, but goes beyond the directly observable. Lastly, the informational comes about as a result of accepting information from external sources. If these facts are literally accepted, it will mean that the formation of beliefs is not wholly dependent on an interaction with the belief object. A teacher does not necessarily have to interact with a child with SEN to form positive or negative beliefs about him or her. The information a teacher receives from his colleagues about a child with SEN could generate a belief system that is positive or negative.

What is notable about belief research is that in certain situations, a person's cognitions or feelings may give rise to attitude (Millar and Tesser, 1986, cited in Zimbardo and Leippe, 1991, p. 196) but at other times or circumstances, there may not be any knowledge of a particular phenomenon, yet an attitude toward a belief object may be prejudiced (Fiske and Taylor, 1984). In the case of the latter, Fishbein and Ajzen (1975) indicate that when previous experience is scarce or when the person has little information on which to base the inference, his subjective probability may be at chance level, indicating a high degree of uncertainty. But given the argument that 'a person's beliefs represent the information he has about himself and his social and physical environment' the notion of chance level cannot be accepted' (Meek, 1994, p. 97).

Thus attitudes can either be spontaneous when there is no prior knowledge about an attitudinal object or informed as a result of previous knowledge and experience with the attitudinal object. In the context of the study, teacher positive or negative attitudes towards a child or children with SEN and disabilities may be spontaneous or informed.

In summing up a person's total belief system, Rokeach (1970) indicates that:

> as an organisation of beliefs that vary in depth, formed as a result of living in nature and in society, designed to help a person maintain a sense of ego and group identity, stable and continuous over time – an identity that is a part of and simultaneously apart from, a stable physical and social environment (p.12).

Reasoning from Rokeach's summation of total belief system, it seems the formation of belief system is environmental rather than heredity. A person's belief system is therefore a learned variable and relatively enduring. In forming attitudes based on beliefs, Petty and Cacioppo (1986) recognise the impact of social attachments. Petty and Cacioppo (1986) argue that in forming attitudes, one's initial evaluations are largely hedonistic; the individual lacks the necessary motivation and relevant arguments to support his beliefs. Hence, attitudes are somehow naïve and primarily negative or positive. They note that as development takes place certain attitudes may be formed on the basis of social attachments, simple inferences and decision rules. As the individual receives much information, probably as a result of learning and experience and develops his thought processes, he scrutinises carefully what he sees or hears and evaluates information in terms of existing knowledge and values. This may mean that social system plays a major role in the formation of attitudes and since social systems vary, we should expect beliefs to vary from person to person and across situational and task demand features.

Okyere (2003) indicates that in most African societies, and this would include Ghana, many parents would not like their children to learn alongside persons with SEN and disabilities in the same classroom (p. 49) due to negative beliefs. In Zimbabwe, for example, Chimedza (1998) reports that disability is viewed 'suspiciously and negatively' (p. 494). According to Okyere (2003), people tend to associate disabilities with curses from the gods and since the society shuns evil, those who are accursed are to be avoided. Such beliefs affect teaching and learning since 'very few programmes are put in place to help change these negative attitudes and cultural beliefs' (Chimedza. 1998, p. 496). A substantial body of research suggests that teachers' beliefs have effects on their teaching practices (Fang, 1996; Clark and Peterson, 1986). As a result,

Stipek, Givvin, Salmon, and MacGyvers, (2001) argue that influencing the beliefs of teachers is necessary to changing their practices. On the basis of this argument, Alghazo and Gaad (2004) maintain that for inclusion to be practical and for the education system to be changed 'teachers attitudes need to change'. But the question is asked about the way to achieve this without any information on how teachers relate or would relate to different categories of children with SEN in mainstream education?

Types of beliefs

Rokeach identified five different types of beliefs which he referred to as Type A, B, C, D, and E. Rokeach described Type A belief as Primitive beliefs, 100 per cent consensus; The Type B is referred to as Primitive beliefs, zero consensus; Type C is Authority beliefs; Type D., Derived beliefs; and finally, Type E. as Inconsequential beliefs. Rokeach defines primitive beliefs as' basic truths' about physical reality, social reality, and the nature of the self; they represent a subsystem within the total system in which a person has the heaviest of commitments. Individuals are therefore inclined to maintain beliefs that correspond with their self concepts and to reject those that do not. A person's self concepts are the beliefs and feelings, knowledge and values he has about himself which give a person his identity (Baron and Byrne, 2000). In a situation where the self concept changes with age and may come about when a person receives feedback that is inconsistent with his existing schema (Bober and Grolnick, 1995).

According to Rokeach the Type A has to do with what a person holds for himself which is psychologically incontrovertible or impossible to deny. The maintenance of the belief seems to depend on the belief being shared with others. They are rarely, if ever, experienced as subjects of controversy and therefore have an axiomatic taken-for-granted character. According to Rokeach, these beliefs are learned through direct encounter with the object of belief. The phrase 'taken for granted' may mean that the believer cannot be taken to task for his belief system since that is what he knows about the object of belief, hence denying it would serve no purpose. Cobb (1994, cited in Koutselini and Michaelidou, 2004, p. 186) conceives that belief formation is the outcome of an individual's historical process of development. Hence, belief may be understood as the intermediary between knowledge and action between the individual and performance.

The White Paper (1997) indicates that special education is influenced by the knowledge, traditions, values and attitudes in society. McManus (2006) rightly points

out 'schools cannot step outside society' (p. 25). If in a particular society beliefs and attitudes about disabilities are negating, they are likely to be extended to even the school system to affect teachers. Okyere (2003) reminds us of how many African countries 'are still plagued by traditional beliefs about individuals with disabilities and the negative attitudes that usually accompany such beliefs' (p. 47). Okyere (2003) further points out that the attitudes of the society determine how they treat children with SEN and disabilities and the kind of provisions they make for their education and training. Chimedza (1998, p.497) therefore expresses fear that a complete departure from special school to regular school would threaten the culture and community of the disabled, for example those with deafness. It may be reasonable to assume that education could be an effective tool to overcome negative attitudes, but in Ghana, education on SEN and disabilities is little or none in the school curriculum. When teachers learn about SEN as research seems to suggest, the outcomes become positive. It is implied by this that if teachers have a direct contact with children with SEN and disabilities, for example, teaching them and learn about the value of differences, they are likely to form beliefs that may favour the child with SEN. In this context, social attitudes must be considered in dealing with attitudinal change since the values and knowledge gained have effects on how individuals relate to belief objects. This is similar to Fazio (1989) and Fazio and Roskos-Ewoldsen's (1994) theory of attitude to behaviour process model which is discussed in the theories of attitude.

Type B resembles the A for it occurs when a person has direct contact with an object of belief. The difference between A and B is that in B, the maintenance of the belief does not seem to depend on the belief being shared with others. There are no reference persons or groups outside the self who could controvert or challenge such a belief. Rokeach points out that through adverse experience, some primitive beliefs may be formed in which support from external authority is abandoned altogether. Rokeach however notes that since the belief is not shared with others, they are impervious to persuasions or argument by others and therefore, like the Type A, psychologically incontrovertible.

It can be inferred from Type B that changing beliefs can at times be difficult due to the experience undergone. If in the process of dealing with a child with SEN a teacher encounters difficulties and frustrations, changing his formed belief may be difficult. This theory is similar to Ajzen's (1988) theory of attitude to planned behaviour discussed in the theories of attitude. Within the same cultural setting,

variations may occur in the beliefs individual teachers hold which authority figures may have no influence upon. According to this theory, people tend to form beliefs as a result of their experiences. We note in particular 'adverse experience' that lead to the formation of beliefs in which support from external authority is abandoned altogether.

Scott, Vitale and Masten (1998) and Scruggs and Mastropieri (1996) indicate that teachers perceive instructional adaptations advisable and necessary but they experience difficulty in implementing them in the regular classroom. If mainstream teachers do not have the knowledge, skills or resource to teach children with SEN and disabilities inclusion may not be possible in spite of government policies and regulations (Moltó, 2003) and attempts to include children could end up threatening their culture and community as Chimedza (1998) rightly concludes. The belief held for children with SEN and disabilities may be true or false, right or wrong. It is implied in this study that in Ghanaian societies, just like any other society, individual teachers may have their personal self-conceived beliefs about children with SEN and disabilities that others cannot influence irrespective of research evidence. This means that in seeking for change, emphasis should be put more on teacher beliefs since curriculum reform and educational change hardly succeed without an understanding of teachers' perceptions emanating from their theories.

Type C is derived from authority figures or reference persons or groups. Unlike Types A and B, Type C is controvertible because the person holding the belief comes to the realisation that some of his or her reference persons and groups do, but others do not share his or her belief. The Type C is particularly interesting for it creates the impression that reference persons and groups are a force to be reckoned with in maintaining beliefs. The reaction of significant others towards the beliefs held by others are important considerations in maintaining or changing beliefs. If they do not support a person's belief system, they are likely to influence the person since the person looks to them to confirm their beliefs. Research reveals, for instance, that if the head of a school is committed to inclusive practice, it encourages others to support it. Attfield and Williams (2003) identify 'national context' (p. 28) as a variable that shapes institutional forms and practices socialises individuals into particular styles of thought and action. Thus, inclusion could be taken seriously if at the national level there is less rhetoric and more real commitment to inclusive practice and efforts made to support its development. It is by this that the individual teacher can be positively

influenced to change beliefs about those with SEN and disabilities to accept and support them in the classroom.

The Type D occurs when we build trust in an authoritative source such as Encyclopaedia Britannica, New York Times and so forth. The tendency is there for people to attach some credibility to the sources and accept what they say. In Type D, windows of opportunity seem to be open to push inclusion forward. The idea seems to imply that in some situations, individuals consider what is carried in literature (including books and journals) and the mass media (including the newspapers, radio and television) to be important. If this is the argument, then it would be prudent if information is documented as it will be read for changes to occur. Teachers could then read about the benefits in including children with SEN to develop more acceptable attitudes for them.

In Type E, beliefs are seen as arbitrary, it may be supported or not. This may mean that many of the beliefs that are held can be influenced negatively or positively. Kagan (1992), for example, argues that beliefs probably persist in part because they serve as filters through which new information is processed. Inclusion is a new philosophy which is yet to be fully understood particularly by teachers whose responsibility it is to implement it. It is argued that support for it could be assured when teachers have information.

The concept and theories of attitude

Literature places a lot of importance on attitudinal research since attitudes affect behaviour (Fiske and Taylor, 1984), and the formation of beliefs (Pratkanis and Greenwald, 1989). Attitude seems to encompass desires, convictions, feelings, views, opinions, beliefs, hopes, judgements and sentiments (Rajecki, 1982). Attitudes may therefore have to do with our beliefs, feelings and behaviours and for purposes of this study should be regarded as the set of beliefs, feelings and behaviours individuals have and exhibit towards persons with special educational needs.

Fiske and Taylor (1984) regard attitude as a hypothetical mediating variable based on the assumption that attitude intervenes between an observable stimulus and observable response. Zimbardo and Leippe (1991) see attitude as a disposition since 'it is a learned tendency to think about some object, person or issue in a particular way' (p. 31). For the purpose of the study, in defining attitude, I selected the one offered by Baron and Byrne (2000) who refer to attitude as:

> our evaluations of virtually any aspect of the social world, the extent to which we have favourable or unfavourable reactions to issues, ideas, persons, social groups, objects-any and every element of the social world (p. 118)

In opting for this definition, I took into consideration the different factors likely to impinge on our evaluations and how they may affect our subsequent reactions or responses to what we find around us. I recognised from the start that one's knowledge and previous experiences as well as social and cultural factors may affect the ways individuals evaluate and react to every element of their social world. We might therefore not expect all persons from the same or different cultural settings to respond in the same way to attitude objects.

A case in point to support this argument is Avramidis et al (2000) study on 'Student teachers' attitudes towards the inclusion of children with special educational needs in the ordinary school' in the UK. They report that student teachers' attitude was generally positive, though they saw children with emotional and behavioural difficulties (EBD) to be of more concern and stress. This study was notable in that it was conducted in an environment with existing policies on SEN. For instance, there is an Index for Inclusion (2000), a SEN Code of Practice (DfES, 2001) and SEN Toolkit (DfES, 2001) to guide the practice of inclusive practice. Among others, the Code and Toolkit mention pupil participation, parental involvement, inter-agency participation (such as the involvement of personnel in the field of medicine, counselling and social services) and how grievances can be redressed in SEN Tribunals).

The SEN Code of Practice (1.7) emphasises partnership between all those involved in meeting the needs of children with SEN-Local Educational Authorities (LEAs), schools, parents, pupils, health and social services and other agencies. As a result of these provisions, some of the teachers might have had their attitudes reshaped since they became aware of the expectations placed on them. But the extent to which policies and laws affect attitudes is debatable. Evidence from literature indicates that sometimes, availability of laws may not make any difference to practice as the cross-cultural study of Leyser, Kapperman and Keller (1994) and Moltó's (2003) showed. Bowman (1986) indicated that where there are laws requiring integration (inclusive education), teacher attitudes tend to be positive but negative where there are no laws. Moltó's proves the contrary. On this basis, the way laws are fashioned and implemented must be carefully watched. Laws and policies on SEN must be clear, systematic and prudently carried out for as Zimbardo and Leippe (1991) have argued that attitude change that comes about as a result of systematic message analysis, tends

to be more durable and persistent than that which comes about due to heuristic decision rules. Zimbardo and Leippe note that 'more cognitive responses result from systematic processing making the resulting attitude more 'well thought out' and 'well connected' to beliefs, values and knowledge' (p. 192).

Ghana is among countries without clearly defined legislations on inclusive practice in spite of the 1992 Constitutional provision and Annex 2: Key Recommendations for SEN on equal opportunities and access for all children. (Casely-Hayford and Lynch http://imfundo.digitalbrain.com/imfundo/web/papers/sen_phase2/SEN%20PHASE%202%20FINAL.doc). Studies so far carried out indicate that teachers in Ghana were among others whose attitudes to children with SEN were significantly less positive (Leyser, Kapperman and Keller, 1994). They attributed this to limited or non-existent training for teachers to acquire integration and overall small percentage of children with SEN who receive services at all. Avoke (2001) indicates that non-disabled persons avoid interacting with those who have disabilities and the 'interactions are often characterised by atypical interpersonal behaviour' (Okyere, 2003, p. 34).

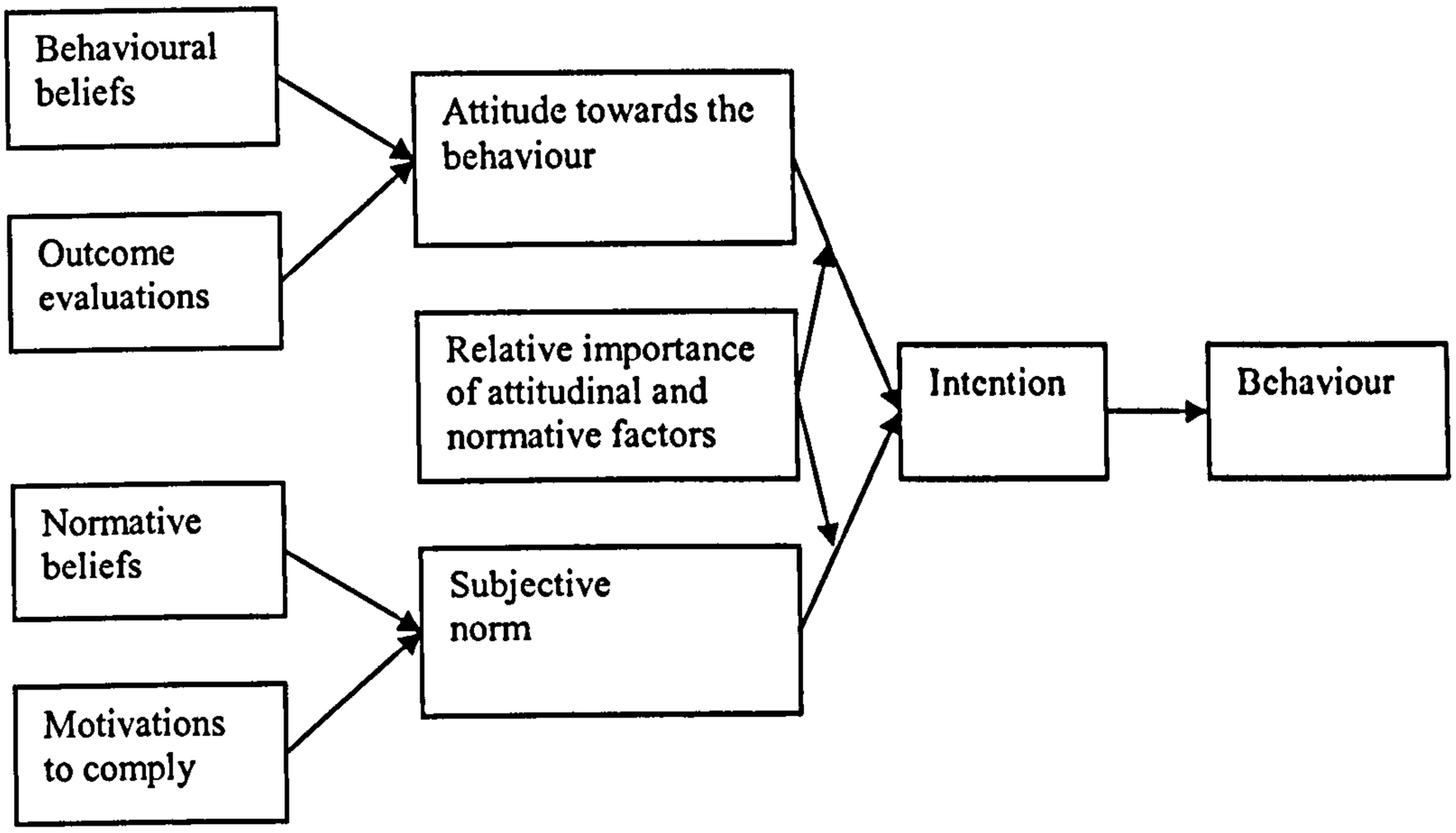
There are a number of theories that explain why and how attitudes are emitted and influence behaviour but for the purposes of this study three are examined – the theory of reasoned action, the theory of planned behaviour, and attitude-to-behaviour process model.

The theory of reasoned action

The theory of reasoned action was proposed by Fishbein and Ajzen (1975) (see Figure 4.1). The theory holds that the decision to engage in a particular behaviour results from a *rational process* that is goal-oriented and follows a logical sequence. Zimbardo and Leippe (1991) find two main issues to be central to intentions. These are: attitudes toward the relevant behaviour; and subjective norms. They see attitudes toward the relevant behaviour to be based on beliefs regarding the behaviour and its likely outcomes. This part indicates that in emitting any specific behaviour, a person considers and evaluates a number of behavioural options. In the subjective norms, the reaction of others is critical or crucial. The individual has to find out whether significant others approve or disapprove of the behaviour. It is the outcomes that serve as the basis for him to reach a decision to act or not to act. *Intention* seems to be an important element since it is that which invariably predicts behaviour.

Figure 4.1: The theory of reasoned action

(The arrows show the direction of influence)



{Source: The theory of reasoned action Fishbein and Ajzen, 1975}.

In the matter of behaviour and whether it has to be emitted or not, Zimbardo and Leippe argue that:

> on any given occasion attitude may or may not guide behaviour depending on whether the subjective norm favours or does not favour the behaviour and whether it is the norm or the attitude that is more important to the individual (p. 189).

One of the two key attributes Manstead (1996) offers for this framework is that strong relationships between attitudes and behaviour will only be found where attitudinal measures and behavioural measures are compatible with respect to the action, object, context, and time elements of behaviour. With this *behavioural intention,* the individual person has the prerogative (volition) to make the decision to perform or not to perform the intended behaviour (Manstead, 1996).

The theory of reasoned action is relevant to the attitudes teachers hold for children with SEN for they have to weigh the consequences or cost their behaviours toward them that is children with SEN and disabilities would have on those without SEN and disabilities. More important, if there are subjective norms that require accommodating children with SEN and disabilities, they will weigh the impact such accommodations would have on the attainment of curriculum objectives and goals particularly in the area of students' academic success. There is therefore an opportunity

cost in this argument. Some form of sacrifice would have to be made in order not to engage in behaviours that may be seen to be competitive. Opportunity cost would influence the attitude toward the behaviour. If teachers think by planning for the diverse range of children in inclusive education they are unlikely to meet curriculum demands, children with SEN and disabilities can be in the regular schools, yet be marginalised a trend that seems incompatible with an inclusive philosophy. Farrell and Ainscow (2002) note that in the UK 'it is difficult to find research evidence that provides definitive guidance as to where policy and practice should be heading' (p. 1). There is pressure on schools to raise academic standards and simultaneously meet the needs of children with SEN and disabilities.

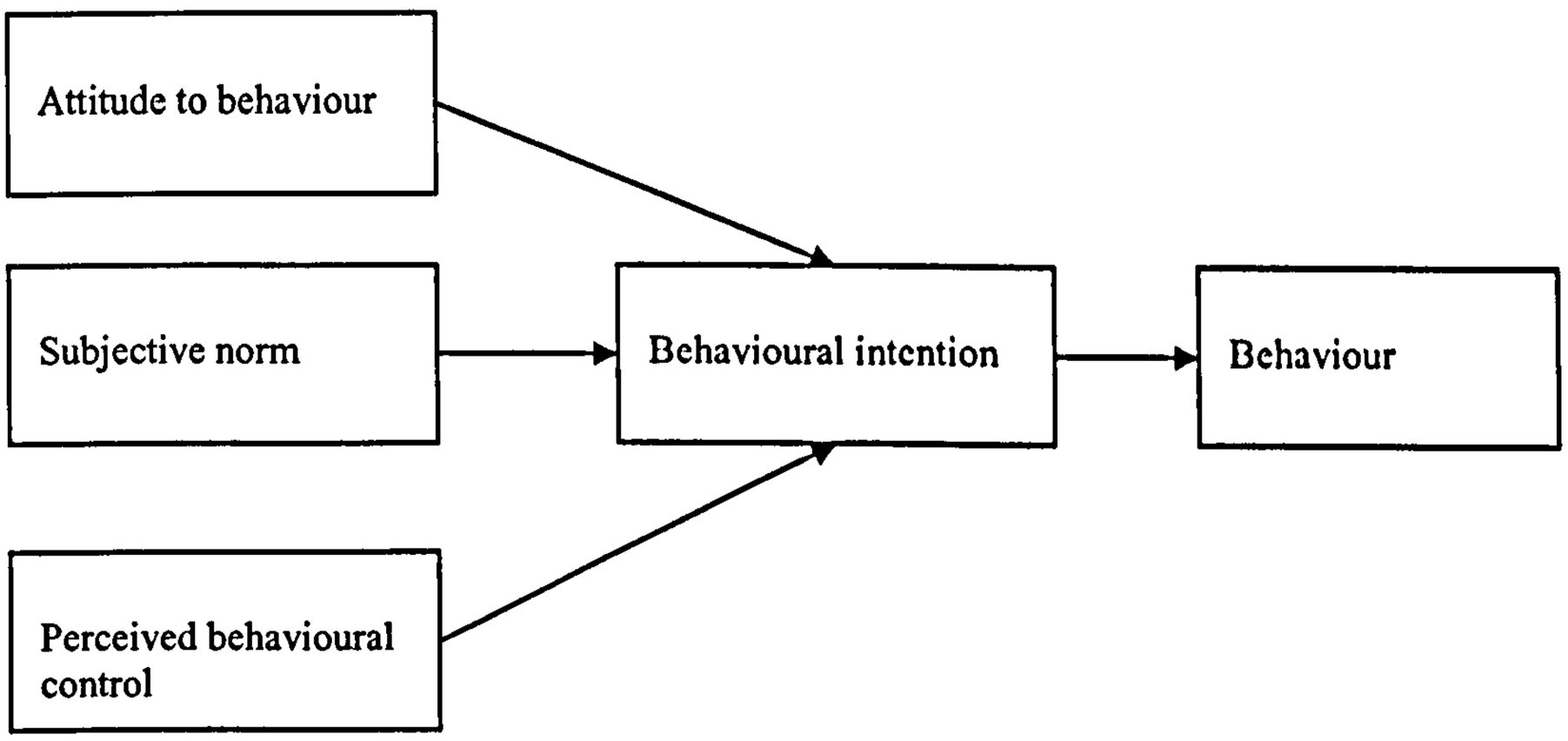
The study of the Audit Commission (2002) reports the considerable pressure many teachers find themselves in their bid to respond to the individual needs of children with SEN and disabilities against the demand to live up to the National Curriculum and achieve ever-better results. The report notes particularly that many of the teachers feel ill-equipped for the task (p. 36). If a situation such as this arises, it is likely for teachers in ordinary classrooms to be apathetic to the academic needs of children with SEN and disabilities for they may not want to be seen as not living up to expectation. If by planning for children with SEN and disabilities teachers are unlikely to meet the expectation of the curriculum, they are very likely to ignore them. The issue then arises as to how teachers can reconcile the demands of the curriculum and simultaneously provide for children with special educational needs. Is it an issue that has to be left in the hands of teachers to decide or national laws should determine what should be done? This is seemingly a dicey issue since by the theory of reasoned action the individual displays behaviour that is in conformity with his or her belief.

<u>The theory of planned behaviour</u>

The second is the theory of planned behaviour proposed by Ajzen (1988) (see Figure 4.2). It is an extension of the theory of reasoned action. This theory represents the individual's perception of how easy or difficult it is to perform a particular behaviour. If behaviour is easy to perform it is rated high in perceived behavioural control, but a difficult one is rated low in perceived behavioural control. In this theory therefore, a person with a high perceived behavioural control is more likely to form the intention to perform that behaviour despite apparent obstacles and setbacks. Manstead (1996) explains that the role of perceived behavioural control is 'non-psychological' in

that it is not the perception of control that causes the failure to act in accordance with intentions, but rather the lack of actual control over the behaviour. Ajzen (1988) notes that behavioural control affects the relationship existing between intentions and behaviour in two different ways: (1) the degree of belief in one's ability to perform a particular behaviour (*perceived* behavioural control) affects intentions regarding that behaviour and (2) the degree of *actual* behavioural control affects one's ability to behave as intended.

Figure 4.2: The theory of planned behaviour



(The theory of planned behaviour (proposed by Ajzen, 1988)

This theory can be related to teacher attitude to inclusive education. The theory of planned behaviour may help explain why some teachers do not want to have anything to do with children with SEN and to think that they belong elsewhere. Scott, Vitale and Masten (1998) and Scruggs and Mastropieri (1996) indicate that 'teachers perceive instructional adaptations advisable and necessary but they experience difficulty in implementing them in the regular classroom'. Regular education teachers are reported to have said they do not have the knowledge, skills or resource to plan as well as teach adequately students with special educational needs. Environmental variables such as class size, financial support, resources and the quality of support personnel available to teachers could have influence on their attitudes (Center and Ward, 1987). These are likely to push teachers to hold more negative attitudes

regarding inclusion than positive ones (Soodak, Podell, and Lehman, 1996; Vaughn, Schumm, Jallad, Slusher and Saumell, 1996).

Large class sizes do not allow the teacher to give individual attention to students (Mushoriwa, 2001). Support personnel include parents, social workers, medical and para-medical personnel (such as physiotherapist, speech and language therapist and occupational therapist), psychologist and counsellors. This view is countered by Gross (2002) who maintains that if teachers are confident in themselves and capable of moving the child on in learning, even in small steps, they do not 'need to pass the buck or suggest they should be elsewhere' (p. 1). Thus, unlike the theory of reasoned action where the individual has volitional control, in the theory of planned behaviour, the behaviour is not under volitional control.

The theory of planned behaviour may imply that the type of environment teachers' work within is crucial to inclusive education. If the environment is supportive to ease teachers' work they are likely to show positive attitude towards children with SEN, but a negative one where there is lack of support. Equally important is the type of training teachers have received to boost their competence in managing children with SEN. Some studies show that teachers' attitude to children with SEN improves when they have some experience with inclusion programme (O'Donoghue and Chalmers, 2000). A three-year period study carried out by Leroy and Simpson (1996) in the state of Michigan in the USA, indicated that 'teachers' negative or neutral attitudes at the beginning of an innovation such as inclusive education may change over time as a function of experience and the expertise that develops through the process of implementation'. This view is generally supported by findings in the UK and Australia (Beh-Pajooh, 1992). This will mean inclusion programme has the chance of being accepted if it is introduced early enough.

Attitude-to-behaviour process model

The third theory is attitude-to-behaviour process model by Fazio (1989) and Fazio and Roskos-Ewoldsen (1994).The model puts emphasis on the strength of stored knowledge of and experience with the attitude object. Fazio's (1986) argument is that attitudes formed on the basis of direct behavioural experience with an object are more predictive of future behaviour towards that object than are those based on indirect experience. The more experience one has with the attitude object, the stronger will be this associative link between the object and the way it is evaluated.

The theory of attitude-to-behaviour process model corresponds with the contact with a child with disability hypothesis which indicates that the more a teacher has the chance to interact with a child with SEN, the better the attitude (Leyser et al, 1994; Yuker, 1988) and that the higher the experience the better the acceptance. Some writers have even argued that people who have had high levels of contact with children with SEN and disabilities tend to be more positive towards their inclusion (Hastings, Hewes, Lock and Witting, 1996; Jones, Wint and Ellis, 1990). The theory seems to suggest that teachers who have had contacts with children with SEN are likely to show more positive attitudes to them and for that matter plan for their academic needs than those who have not. But there seems not to be a general acceptance of this view point. Stephens and Braun's (1980), and Forlin (1995) and Gilada et al (2003), for example, find that teachers who had taught for several years were less supportive of inclusion. There are other factors such as 'time' and 'expertise' (Scruggs and Mastropieri, 1996) and the 'child's characteristics and the conditions' under which the needs of the child can be met (Peetsma et al, 2001, p. 127).

In this chapter, it has been found that beliefs and attitudes affect our behaviour. Belief was conceptually defined as a simple proposition, conscious or unconscious mental state that is inferred from what a person says or does. Beliefs vary in depth and are formed as a result of living in nature and in society; it is therefore environmental rather than genetic. Attitude was defined as the way we evaluate any aspect of the social world, the extent to which we have favourable or unfavourable reactions to issues, ideas, persons, social groups, objects-any and every element of the social world. In a variety of ways, Fishbein and Ajzen (1975) and Fazio (1988) described how attitudes influence behaviour. In the theory of reasoned action, Fishbein and Ajzen (1975) show how a person's behaviour is influenced by a rational process and intention. Attitudes are therefore dependent on intentions; there must be goals for what people do. Ajzen's (1988) theory of planned behaviour showed that behaviours that are easy to perform are more engaged in than difficult ones. If teachers consider it a difficult task to teach children with SEN and disabilities, SEN policies may have little or no effect. Fazio (1989) and Fazio and Roskos-Ewoldsen's (1994) theory of attitude-to-behaviour process model placed emphasis on the strength of stored knowledge and experience with an attitude object. The more a person is familiar with an attitude object, the better he accepts it. The theories of Fishbein and Ajzen (1975) and Fazio (1989) are relevant in that inclusion is affected by the kinds of student educational

needs and the degree to which teachers can be involved in the process (Moltó, 2003; Avramidis, Bayliss and Burden, 2000; Booth and Ainscow, 1998). The review on attitude has indicated that the development and implementation of inclusive education is largely dependent on teacher attitudes (Avramidis and Norwich, 2002; Avramidis, Bayliss and Burden, 2000; Meijer and Stevens, 1997; Norwich, 1994). Teachers are willing to implement policy on inclusion if they are positive about it. This is without prejudice to literature indicating that teacher attitudes to children with SEN are generally negative (Norwich 1994; Garvar-Pinhas and Schmelkin, 1989).

In the next chapter, we turn attention to the various techniques used to design research instruments for data collection. The chapter begins with a framework to guide the selection of research design. Subsequently, the population from which the sample was selected and study areas are described. Also discussed are the underpinning ethical considerations since consent was deemed important for the study. Finally, there is description of the sampling techniques, types of instruments used - their design and pilot-testing as well as procedures used to collect and analyse data.

CHAPTER FIVE

METHODOLOGY

Introduction

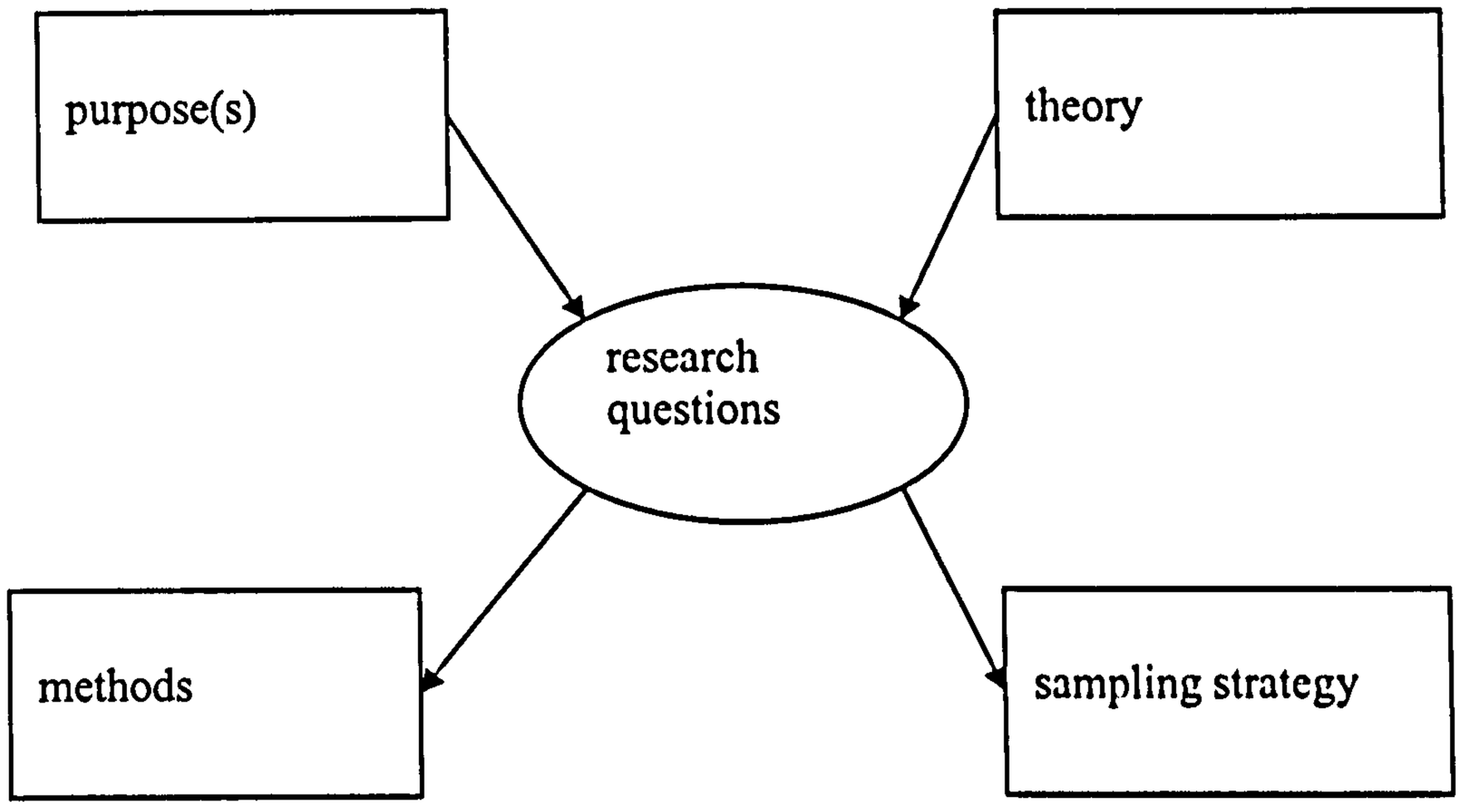
The previous chapters dealt with the aims of the investigation and what researchers have so far found as far as teacher attitudes to inclusion are concerned. In this current chapter, concern is on the various methods used to find representative research sample from the population of teachers in Ghana. Further, there is information on how research instruments were developed, pilot-tested and validated for data collection in Ghana to answer the research questions. Subsequently, the following areas are looked at:

- Research design
- Population
- Sample and sampling techniques
- Ethical considerations
- Instrumentation
- Pilot-testing instruments
- Validating instruments
- Gathering research data
- Procedure to analyse data

Research design

Robson (2002) identifies five aspects (see Figure 5.1) to guide framework for research design. These were: purpose, theory, research questions, methods, and sampling strategy.

Figure 5.1: Framework for research design



(Source: Robson, C. (2002). *Real World Research* (2nd ed.) Cornwall, Blackwell.)

I took the aspects of Robson's framework into consideration in thinking about a research design to use. However, I added another aspect which was 'resources' such as time and money to the aspects in making a decision on the research design. These were guided by the following:

- The purpose of the study. The study was basically attitudinal research, non-experimental, soliciting information from teachers in regular Primary Schools in Ghana primarily to find out the choices they would make for the educational placement of children with SEN and disabilities. Additionally, it was to examine the emotional reactions teachers experienced in teaching children with SEN and disabilities in the mainstream. Knowledge gained could contribute significantly to shaping and/or re-shaping SEN policy development and implementation in the country. It was not my intention to investigate the attitudes of teachers teaching in special schools so I deliberately excluded them from the study.
- Theory: The theory underpinning the study was that teachers' choice of educational provision for children with SEN was a function of teacher characteristics, child characteristics and organisational factors.

- Research questions. The questions were concerned mainly with the types of educational placement options teachers would choose to teach children with SEN and disabilities. These were to include the mainstream with and without support, and special school and also emotional reactions teachers experience in teaching children with SEN and disabilities in mainstream. Teachers were to indicate whether in teaching children with SEN and disabilities in mainstream, they were anxious or relaxed, encouraged or discouraged, confident or diffident, satisfied or dissatisfied, self-assured or worried.
- Methods. Both questionnaire and semi-structured interview (described later in this chapter) were used. The data was both quantitative and qualitative. Anderson (1998) posited that descriptive design can be both quantitative and/or qualitative. In quantitative research, researchers are able to measure numbers and summarise concepts being studied (Golafshani, 2003). By using the Likert scale type (Likert, 1932), it was possible to measure teachers' attitudes using frequencies for comparisons to be made between events (Cohen et al, 2004). The analysis was also to incorporate the use of chi-square tests to confirm results and test for relationships. Hence, an objective assessment and comparisons of teachers' attitudes to children with SEN and disabilities could be measured.
- The sampling strategy. The study made use of both probability and non-probability sampling techniques. The purposive sampling technique was used to select teachers from three regional capitals of the country, while the teachers were randomly selected using stratified, disproportionate and systematic sampling techniques.
- The resources available to researcher. The geographical distribution of the sample (Robson, 2002) was widespread and involved time and money which invariably were major constraints.

Considering the foregoing aspects of framework for research design, in making a decision about a research design, I opted for the Descriptive Survey design. Best (1970) considers this design appropriate when information is needed about conditions or relationships that exist; practices that prevail; beliefs, points of view, or attitudes that are held or processes that are going on. Van Dalen (1979) finds this type of design appropriate since it allows the researcher to collect data to assess current practices for

improvement. This was a nation-wide study embracing several teachers in three of the regions of Ghana. Three months were set aside for data collection. It therefore meant that the research design selected had to be efficient and cost effective. A Case Study, for example, could not have been helpful since it would not have allowed the researcher to have information from several teachers in the country.

Population

In Ghana, all children irrespective of their gender, physical, social, emotional, or mental characteristics begin their education usually in the neighbourhood or mainstream Primary Schools. Emanuelsson et al (2005) point out that 'it is in primary education that inclusive education is most developed, and it is here that the challenges are most visible' (p. 114). This makes the Primary School a critical area to consider in any research concerned with inclusion. The target population was mainstream Primary Schools' teachers in three regions of the country. Teachers in special schools were deliberately excluded from the study in order not to bias the results since this was not a comparative study.

Teachers usually enter the teaching profession at the age of 21 and retire at 60 years. Due largely to the Educational Reforms of 1987, teachers' qualifications in Primary Schools in the country have improved and become diverse ranging from the unprofessional such as Basic Education Certificate of Examination (BECE), Senior School Certificate of Examination (SSCE), General Certificate of Education Ordinary and Advanced Levels to professionally trained such as A 4 Year, A 3 Year, Diploma and Degree certificates. A number of graduate teachers from Universities of Cape Coast (UCC) and University of Education of Winneba (UEW) take up appointment in the Primary Schools, a trend likely to improve the quality of teaching in the Primary Schools in the country.

The Ghana Education Service keeps annual records of the staffing in the country. The latest staffing data for Basic Education Division (Primary Schools) which I obtained prior to collecting data was the one for 2003 where the Primary School teacher population for the ten (10) regions of Ghana was 66,323 (GES, 2003, unpublished) (see Table 5.1).

Table 5.1: Staffing Data for Basic Education Division (Primary Schools), Ghana, 2003

REGION	DISTRICTS	TRAINED	UNTRAINED	TOTAL
Greater Accra Region	5	5,564	91	5,655
Eastern Region	15	7,995	1,952	9,947
Central Region	12	4,872	1,758	6,630
Western Region	11	4,647	2,759	7,406
Volta Region	12	6,842	684	7,526
Ashanti Region	18	9,559	2,209	11,768
Brong-AhafoRegion	13	5,099	2,568	7,667
Northern Region	13	3,221	2,458	5,679
Upper East Region	6	1,786	530	2,316
Upper West Region	5	1,298	431	1,729
TOTAL	110	50,883	15,440	66,323

{Source: Ghana Education Service (2003) *Enrolment and Staffing Data*, Accra, unpublished}.

Significantly, the number of teachers per region was unevenly distributed as is depicted on Table 5.1. Aside from this, fluctuations had occurred in teacher population as the 1988, 1993 and 1998 statistics (Akyeampong, 2003) (see Table 5.2) and the Staffing Data for Basic Education Division (Primary School), Ghana – 2003 reveal (see Table 5.1).

Table 5.2: Numbers of pupils, trained and untrained teachers and pupil-teacher ratios 1988-1998

	1988	1993	1998
Pupils	1677100	2047300	2288800
Teachers	65300	67800	63700
Number qualified	37500	46400	51000
Number unqualified	27800	21400	12700
% Unqualified	42.6	31.6	19.9
Overall PTR	25.7	30.2	35.9
Qualified teacher PTR	44.7	44.1	44.9

{Source: Akyeampong, K. (2003). *Teacher Training in Ghana-Does it count?* Multi-Site Teacher Education Research Project Country Report One Department for International Development Educational papers}

In 1988, teacher population figures, including the trained and untrained, were 65,300. In 1993, that is, five years later, there was an increase of 2,500 teachers, but this trend was reversed in 1998. The 1998 figure shows that instead of an increase, there was a decrease. Compared to the 1988 figure, a reduction of 1,600 teacher population was realised. The reason for this decrease is not apparent, but it seems teachers were in

general becoming dissatisfied with conditions of service in their profession and had travelled outside the country.

The Table 5.2 further reveals that there was an improvement in the number of trained teachers relative to the untrained. The 1988 record shows that of the 65,300 teachers, more than half were untrained. In 1998, 80.06% of the 63,700 teachers in the Primary Schools were trained and only 19.94% were untrained. Though the year 2003 (see Table 5.1) witnessed an unprecedented improvement in the overall teacher population for the country as there were 66,323 teachers including the trained and untrained, the number of trained teacher population decreased in 2003. The trained and untrained distribution was 76.7 to 23.3 per cent, respectively. Further, the table indicated that the Pupil-Teacher ratio (PTR) was above the 30 that the White Paper recommended for primary schools in England and Wales in the United Kingdom (DfEE, 1997). In 1988, the PTR was 25.7. In 1998, it jumped to 35.9 (see Table 5.2), but in 2003 it decreased to 1:33 (see Table 5.3). By implication, teachers in the country had to contend with high pupil ratio, a trend likely to have effects on teacher beliefs and attitudes to children with SEN.

Table 5.3: Pupil – Teacher Ratio (PTR) based on Enrolment and Staffing Data for Basic Education Division (Primary School), Ghana – 2003

REGION	TOTAL PUPIL ENROLMENT	TOTAL TEACHER ENROLMENT	PUPIL – TEACHER RATIO (PTR)
Greater Accra Region	206,855	5,655	1:36
Eastern Region	286,645	9,947	1:29
Central Region	220,029	6,630	1:33
Western Region	238,682	7,406	1:32
Volta Region	208,163	7,526	1:27
Ashanti Region	371,170	11,768	1:31
Brong-Ahafo Region	223,376	7,667	1:29
Northern Region	220,060	5,679	1:39
Upper East Region	127,810	2,316	1:55
Upper West Region	68,795	1,729	1:40
TOTAL	2,171,585	66,323	1:33

(The data on Table 5.3 was derived from Tables 5.1 and 5.4. PTRs have been approximated to two decimal places.)

There may be several reasons for the increase in the PTR one of which was government's initiative. Since the launching of the Educational Reforms in 1987 (Adeanet http://www.adeanet.org/wgesa/en/doc/ghana/chapter_2.htm), the Ghana government had made basic education free and compulsory; making it appear the policy of free Compulsory Universal Basic Education (fCUBE) was yielding positive

results. Besides, the education of the girl-child witnessed an unprecedented support. This gave an indication that if governments cease from rhetorics to support educational policies, the outcomes tended to be good.

Table 5.4: Pupil Enrolment Data for Basic Education Division (Primary School), Ghana – 2003

REGION	SCHOOLS	GIRLS	BOYS	TOTAL
Greater Accra Region	817	105,273	101,582	206,855
Eastern Region	1,903	136,039	150,606	286,645
Central Region	1,237	103,802	116,227	220,029
Western Region	1,493	113,911	124,771	238,682
Volta Region	1,535	99,193	108,970	208,163
Ashanti Region	1,986	179,106	192,064	371,170
Brong-Ahafo Region	1,536	107,190	116,184	223,376
Northern Region	1,483	95,171	124,889	220,060
Upper East Region	471	60,687	67,123	127,810
Upper West Region	387	34,418	34,377	68,795
TOTAL	12,848	1,034,790	1,136,793	2,171,585

{Source: Ghana Education Service (2003) Enrolment and Staffing Data, unpublished}

Selecting study areas

Ghana is typically divided into three zones namely: the southern zone, middle zone and northern zone. The southern zone comprised Greater Accra Region, Eastern Region, Central Region, Western Region and Volta Region. The middle zone was made up of Ashanti and Brong-Ahafo Regions, and the northern sector consisted of Northern, Upper East, and Upper West Regions. It was therefore decided that in each of these zones, one region would be selected to represent the zone. By adopting this strategy, the researcher hoped to make the study as representative as possible. The three regions that were selected were: Central, Ashanti and Northern Regions. Altogether, they had a teacher population of 24, 077 (see Table 5.3). The main criterion used in selecting the regions was the regions' typicality. The following were typical of the selected regions:

- *Central Region*: The Central region was composed of 12 Districts (see Table 5.1) with Cape Coast as its capital. Formal education first began in this region. The first school was established by the Portuguese in the Elmina Castle (Mc

Williams and Kwamena-Poh, 1975). Until 1877, Cape Coast was the capital town of the Gold Coast and takes pride as the citadel of education in the country. It is in the heart of this municipality that the University of Cape Coast which has the mandate to train teachers to teach in the Secondary Schools and Training Colleges resided (University of Cape Coast http://www.uccghana.net/General/AboutUs.htm). The Institute of Education one of the departments of the Faculty of Education in the university conducts all the examinations of the Training Colleges and the certification of teachers. The region had three Teacher Training Colleges namely: OLA Training College (Cape Coast), Komenda Training College (Komenda) and Fosu Training College (Fosu). Despite these, like any of the regions in the country, the people in this region had certain beliefs about children with SEN and disabilities which were sometimes bizarre and difficult to explain. There was a public Primary and Junior Secondary School set up for the Deaf in Cape Coast with students' population of 285. There were 158 male and 127 female students (Casely-Hayford and Lynch http://imfundo.digitalbrain.com/imfundo/web/papers/sen_phase2/SEN%20PHASE%204.doc).

- Ashanti Region: The region is unique for being the central part of the country. It had eighteen administrative districts (see Table 5.1) making it the region with the largest number of districts. Kumasi is capital city where the Asante King resides through whose initiative the Asanteman Educational Foundation was established to support needy students. The Ashanti Region has a number of Educational Institutions including colleges such as the Wesley and St. Louis Training Colleges (Kumasi), Offinso Training College (Offinso), St. Monica's Training College (Mampong- Ashanti). This notwithstanding, public special schools had been established to cater for children with SEN. The Garden City Special School for the Mentally Handicapped was set up in Kumasi. The school had 150 students 95 of whom were male and 55 female. The Ashanti School for the Deaf was in Jamasi with a population of 289. The male students were 150 and female, 139. this was a multi-purpose institution for it had Primary, Junior Secondary and Vocational schools. (Casely-Hayford and Lynch http://imfundo.digitalbrain.com/imfundo/web/papers/sen_phase2/SEN%20PH

ASE%204.doc). Like the people in the Central Region, those in the Ashanti Region had unfounded beliefs about children with SEN and disabilities which likely affected regular education teachers.

- Northern Region: Its capital town is Tamale. It had thirteen districts (see Table 5.1) and the biggest of the three selected regions, but economically the most disadvantaged or deprived. In the northern zone, it had the highest number of teacher population of 5,679. Taking the trained–untrained teacher ratio in the country, this region had the highest number of untrained teachers. A number of factors accounted for why untrained teachers were so many in the region. The region was sparsely populated and the most deprived, prone to diseases and ravaged by ethnic wars that engulfed all the tribes in the region. Most trained teachers do not accept posting to the region. The region had three Teacher Training Colleges namely: Tamale and Bagabaga Training Colleges (Tamale), and Bimbilla Training College (Bimbilla). There was a public School for the Deaf in Savelugu. However, there was no school for the blind or the mentally retarded or mentally handicapped. (Casely-Hayford and Lynch http://imfundo.digitalbrain.com/imfundo/web/papers/sen_phase2/SEN%20PHASE%204.doc) In spite of this, since negative beliefs about disabilities were pervasive (Okyere, 2003), they seem to have influenced the teachers in the region like they did with the two other regions.

Sample and sampling techniques

Cohen, Manion and Morrison (2004) opine that surveys typically rely on large scale data to enable comparisons to be made over time and between groups. It is also argued that the use of a larger sample is appropriate if variations exist in the population. In this study, the researcher realised that a larger sample could have been more appropriate by virtue of the nature of the study; however, considering the cost constraints - in terms of time, money, stress, and resources, preference was given to a smaller sample. Besides, in Ghana, there were not many variations in the teacher population as teachers could teach in any school in any of the ten regions of the country. While arguing for larger sample, Cohen et al (2004) do not think the use of large numbers guarantees representativeness. They opine that in certain situations, researchers have to focus on a minimum sample size that accurately represents the

targeted population. The correct sample size was therefore to depend on the purpose of the study and nature of the population under scrutiny.

In determining an appropriate sampling size for the 24, 077 teacher populations of the three regions, consideration was given to the sampling error and confidence level. Sampling error is the error caused when the researcher selects a sample instead of conducting a census of the population (Life Science Glossary, Everythingbio http://www.everythingbio.com/glos/definition.php?word=sampling+error). It is controlled by ensuring that the samples taken have no systematic characteristics and are a true random sample from all possible samples. (Jimmy, Wales, Wikipedia http://en.wikipedia.org/wiki/Sampling_error). Confidence level, on the other hand, has to do with measuring the degree of certainty. (The Wall Street Journal. Glossary on the web Investorwords.com http://www.investorwords.com/1027/confidence_level.html). Taking a sampling error of 5% with a confidence level of 95%, a sample size of between 377 and 381 would have been appropriate for teacher population of between 20,000 and 50,000 (Cohen et al, 2004). But considering the fact that some of the respondents could fail to return questionnaire sent to them, an increase was regarded imperative. I therefore decided to use a sample size of 540 which I deemed appropriate for a study of this nature. It was from this size that teacher respondents were selected. I was interested in inter- and intra-regional variations; as well as variations in the trained and untrained teachers. Hence, teachers were selected not only from the regions, but also from Urban, Semi-urban and Rural areas of each of the three regions.

In building up an appropriate sampling size that was representative of the population of the three regions, calculations were based on the total number of teachers in the selected regions for 2003 (see Table 5.5) and the trained and untrained teacher distribution (see Table 5.7).

Table 5.5: Number of teachers (trained and untrained) for selected regions based on 2003 population figures

REGION	TRAINED	UNTRAINED	TOTAL
Central Region	4,872	1,758	6,630
Ashanti Region	9,559	2,209	11,768
Northern Region	3,221	2,458	5,679
TOTAL	17,652	6,425	24, 077

Based on Table 5.5, the proportion for each of the three regions was calculated (see summary on Table 5.6) and distributed accordingly (see Table 5.7).

Table 5.6: Sampled proportion based on number of teachers in selected regions

REGION	TOTAL NUMBER OF TEACHERS	PROPORTION (%)
Central Region	6,630	27.53 approx. 27
Ashanti Region	11,768	48.87 approx. 49
Northern Region	5,679	23.58 approx. 24
TOTAL	24, 077	100

Table 5.7: Showing distribution of sample size among the regions.

REGION	Percentage (%)	Number of respondents
Central Region	27	145.8 approx. 146
Ashanti Region	49	264.6 approx. 265
Northern Region	24	129.6 approx. 129
Total	100	540

Having derived the regional allocations as Table 5.7 reveals, the next was to consider the allocations for trained and untrained teachers. The selection of trained and untrained teachers for each region was done based on how they were distributed. Table 5.8 provides a summary of it. The more trained teachers there were in a region, the more the sample size.

Table 5.8: Showing percentage of trained and untrained teachers in selected regions

REGION	TRAINED		UNTRAINED		TOTAL	
	Number	%	Number	%	Number	%
Central Region	4,872	73.4	1,758	26.6	6,630	100
Ashanti Region	9,559	81.2	2,209	18.8	11,768	100
Northern Region	3,221	56.7	2,458	43.3	5,679	100
TOTAL	17,652	73.3	6,425	26.7	24,077	100

Table 5.9: Distribution of sample based on proportions of trained and untrained teacher figures

QUALIFICATION	CENTRAL		ASHANTI		NORTHERN	
	Number	%	Number	%	Number	%
Trained	106	73	215	81	74	57
Untrained	40	27	50	19	55	43
Total	146	100	265	100	129	100

A 1996 World Bank report (cited in Akyeampong, 2003) on the Basic Education Sector Improvement Programme in Ghana (BESIPG) indicated that in some districts in the country, between 50 and 70% of teachers remain untrained, mostly in the rural areas, coupled with the fact that most trained teachers prefer to teach in urban areas, it was decided that the disproportionate sampling technique would be adopted in

selecting trained and untrained teachers from the urban, semi-urban and rural areas. On the basis of this, the distribution was done on the ratio of 3: 2: 1 for trained teachers and 1: 2: 3 for the untrained in the three locations (see Table 5.10). What this meant was that in dealing with trained teachers, more of the teachers were to be selected from urban areas as opposed to less for the untrained.

Table 5.10: Distribution of location samples (i.e. urban, semi-urban and rural) based on proportions of trained and untrained teacher figures.

QUALIFICATION	CENTRAL			ASHANTI			NORTHERN			Total
	Urban	Semi-urban	Rural	Urban	Semi-urban	Rural	Urban	Semi-urban	Rural	
Trained	53	35	18	107	72	36	37	25	12	395
Untrained	7	13	20	8	17	25	9	18	28	145
Total	60	48	38	115	89	61	46	43	40	540

KEY (Format of distribution)
Trained ***3: 2: 1***
Untrained ***1: 2: 3***

Sampling techniques for research subjects

For purposes of comparisons, each of the three selected regions was sub-divided into urban, semi-urban and rural areas. An urban area was operationally defined as any place with a minimum population of 1,000 persons (Office for National Statistics, United Kingdom census http://www.statistics.gov.uk/census2001/pdfs/urban_area_defn.pdf) while a rural area is a place where the number of persons is below a population density of 400 (Statcan http://www.statcan.ca/english/research/21-601-MIE/2002061/appendixa.pdf). By implication, a semi-urban area has a population density of between 400 and 1,000 persons. In Ghana, the classification of an urban area is usually put at 5000 persons (Ghana http://countrystudies.us/ghana/35.htm).

In this study, all respondents from urban areas were selected from regional capitals by virtue of their typicality (Cohen, Manion and Morrison, 2004; Robson, 2004). Hence, the purposive sampling technique was used to select Tamale (the regional capital of Northern Region); Kumasi (the regional capital of Ashanti Region) and Cape Coast (the regional capital of Central Region). The purposive sampling technique is considered a non-probability technique. In purposive sampling, the researcher builds up a sample that is likely to meet certain specific needs. Regional capitals are unique by themselves in that they are accorded priority of place whenever innovations and resources are thought of. Among others, they house Educational Offices and in Ghana, most pilot projects and educational innovations are often tried out first in schools in these places. Again, these are places where most teachers would prefer to live and work due to existence of social amenities and facilities. By selecting these places, the researcher aimed at identifying differences between teacher attitudes in relation to those at semi-urban and rural schools.

Apart from the disproportionate random sampling technique, the researcher anticipated using the stratified and systematic sampling techniques to select research subjects. These are mainly probability sampling techniques (Cohen et al 2004; Robson, 2004). The stratified sampling technique was first used in grouping research subjects into trained and untrained. The systematic sampling technique involves the selection of 'subjects from a population list in a systematic rather than a random fashion' (Cohen et al 2004, p. 100). The first respondent is usually selected at random from the list and the rest are selected from every *n*th person (Robson, 2004). In view of unevenness in the population of trained and untrained teacher distribution, the use of the disproportionate sampling technique (Robson, 2004) was to reflect sample sizes as is found on Table 5.9.

Ethical considerations

While in social and medical research the obligation to inform and obtain the consent of human subjects is axiomatic, Homan (2001) indicates that this principle is very often compromised by educational researchers. According to him educational researchers are often reluctant to inform their subjects and use others such as class teachers and school heads as gatekeepers. He defines Gatekeepers to be people 'who give access to a research field' (p. 333). Homan (2001) indicates that 'consent may therefore be assumed rather than informed' (p. 331). What Homan means by this is

subject to various interpretations, but the researcher's understanding is that consent is taken for granted. Thus, once a teacher gives permission, he has spoken on the individual's behalf. Hence, the researcher can involve the individual in research. If this is the meaning, an instant ethical problem emerges since it violates the principle of consent.

Frankfort-Nachmias and Nachmias (1992) and Robson (2002) seem to be flexible in addressing the ethical issue of informed consent in educational research. Frankfort-Nachmias and Nachmias (1992), for instance, argued that it is not absolutely necessary to studies where no danger or risk is involved. In this study, teachers were the human subjects whose beliefs and attitudes were being investigated. It was envisaged that having completed the questionnaire items and/or responded to the interview data, they were likely to be influenced in one way or the other. Their longed cherished and nurtured beliefs and attitudes may be challenged, something that could lead to cognitive dissonance (Festinger, 1957). This could be regarded as psychological harm. It was therefore considered prudent to inform and seek the consent of the research subjects for the purpose of respecting their dignity (Homan, 2001, McNamee, 2001).

A number of steps were taken to obtain consent from the respondents. In the first place, a covering letter to the questionnaire instrument explained the purpose of the research and asked for voluntary participation. Interviewees were interviewed if only they were willing to do so. In the interview permission was sought to tape record (Anderson, 1998) what transpired. They were given the chance to stop the researcher if they were not clear about certain issues. Additionally, they were permitted to ask questions and withdraw from the research if they were no longer interested. Finally, consent was sought to report findings but honestly assured that any information that could identify them was to be kept out of published reports. As soon as questionnaire and interview data were tabulated, all names and addresses would be removed (Sommers and Sommers, 2002). There would be honesty in reporting what is found (Foster, 1996). More important, research participants were guaranteed confidentiality and anonymity (Sommers and Sommers, 2002).

Is the use of gatekeepers right or wrong? The answer is neither here nor there. In arguing for *right*, it may be said that Homan failed to appreciate the situation that existed when I went to Ghana for research data. I was told that no head teachers in the country were to allow their teachers to participate in research such as completing

research instruments unless permission was granted by the Regional and District Directors of Education within their regions. Consequently, individual school teachers could not have participated in the study without permission. In such situations, I think consent can be obtained when there is sufficient justification for it. In this sense, gatekeepers can be used. But denied individual consent, it would be interpreted as violation of the principle of informed consent and therefore *wrong*. It is wrong for opportunity has not been given to the individual teachers to make a personal decision to participate or not to participate.

Undoubtedly, this principle of informed consent seems inhibiting and problematic since researchers ought to almost always wait for participants to show the green light or give the nod before research is carried out. The principle of informed consent is open to a wide range of interpretations. It is argued for instance that: How fully should respondents be informed? What opportunity should be given to withhold consent? Robson (2002) questions how practical it is to ask in advance whether people are prepared to take part in a research. According to Robson, it may not be possible or practicable to do this. He notes

> 'you may have good grounds for believing that telling them would alter the behaviour you are interested in. But not telling them would mean that you have taken away their right not to participate' (p. 68).

It is perhaps for this salient reason that in some circumstances, provision is made for the completion of Consent form. But the use of consent form is equally fraught with ethical issues. It may be argued if the gatekeeper, for example, is really aware of the purpose and possible risks the participant is likely to undergo? Other problems relate to the mechanism the participant should employ if he or she no longer finds interest in the research. Is it the gatekeeper who makes the decision for participant's withdrawal or the one can avoid the gatekeeper and simply walk out? Or will there be the possibility of the gatekeeper being forced or pressured to sign the form? These issues need to be addressed for the use of the consent form to be relevant. It is also argued whether informed consent can assure a collaborative relationship between researcher and participant. Though informed consent can provide legal protection and ensure confidentiality, what is important as far as the argument is concerned is the collaborative relationship where both researcher and participant are transparent to each other. This should be considered cardinal in any educational research.

Instrumentation

This survey employed two main instruments. These were Questionnaire and Interview.

Designing questionnaire instrument

The questionnaire was used to elicit information for the Research Questions. It was found that questionnaire could be administered to a large number of people at the same time (Fraenkel and Wallen, 1993) and are found to be 'extremely efficient at providing large amounts of data, at relatively low cost, in a short time' (Robson, 2002, p. 234), but compared to other methods of data gathering it has relatively low return rate (Robson 2002; Rose and Grosvenor, 2001; Best and Kahn, 1989; Ary et al, 1985).

The questionnaire had a number of sections composed of both *close-ended* and *open-ended items* with the former forming the majority (see Appendix A). In the close-ended type, some options or alternative responses were provided to respondents to select from. In using the questionnaire type, the researcher failed not to perceive some possible difficulties respondents were likely to face such as options or alternatives not adequately representing what they thought. While recognising this restriction, Fraenkel and Wallen (1993) opine that the close-ended types are easy to use, score and code for analysis on a computer. However in overcoming the restriction imposed on the respondent, the options included: 'Any other?' choice for the respondent to indicate a response appropriate to him or her. This enabled the researcher to have information not anticipated.

The open-ended type of item allowed respondents to freely compose responses which they considered appropriate (Sommers and Sommers, 2002). Among the several advantages the open-ended type had over the close type was affording the respondent an opportunity to make a truer assessment of what he or she really believed (Robson, 2002). In the administration of the questionnaire, all respondents were restricted in the number of points they could give. For instance on the advantages and disadvantages in teaching children with special educational needs and disabilities in the mainstream, at most two points were to be given to each. This measure was adopted to facilitate analysis.

There were four sections of A, B, C, and D (see Appendix A). The Section A was mainly concerned with the background data of respondents. There were eight closed-ended items including gender, age range, and qualification, teaching

experience, teaching of a child or children with SEN, and knowledge about SEN management. The study assessed the extent to which these variables affected teacher beliefs and attitudes in inclusive practice. Avramidis et al (2000) hint that variables such as gender, age, years of teaching experience, contact with disabled persons might impact on teacher acceptance of the inclusion principle.

Section B assessed the beliefs teachers held for children with special educational needs and disabilities in terms of the educational environment which could appropriately and adequately meet their needs. There were two parts; the first part was closed type and the second, open. In order to erase any doubts about what the terms 'beliefs' and 'inclusion' meant, the terms were explained. In designing items to assess this, a five (5) point Likert scale made up of the numerals 1, 2, 3, 4 and 5 was used. Likert-type scale named after Rensis Likert (1932) measures attitude by presenting a list of statements on an issue to which the respondent indicates degree of agreement using categories (Sommers and Sommers, 2002). Using these values, respondents were asked to tick the educational provision they considered to be most appropriate for each of ten categories of special educational needs based on those researcher considered teachers were familiar with in Ghana. The interpretations for these values were:

1. I can teach them without any help from others
2. I can teach them when I consult experts for information on teaching strategies
3. I can teach them when there are special education teachers to work side by side with me in the classroom
4. I can teach them when there is a resource room service to complement what I teach them
5. None of the above, I think special schools could best serve their needs.

The SEN categories were: Mild to moderate intellectual difficulty, Severe to profound intellectual difficulty, Emotional and behavioural difficulty, Physical disorder, Health disorder, Deafness, Hard-of-hearing, Blindness, Low vision, and Speech and Language disorder. It was found that a number of criticisms have been raised on the validity of attitude scales. Sommers and Sommers (2002, p.164) identify two of them. The first is that such scales are poor predictors of behaviour since the words on printed page bear little resemblance to the actual situation. Secondly, the tendency is there for a person to have a single favourability score which is unlikely to reflect the specificity of one's attitude. In order to overcome these problems, during

the administration of the questionnaires, respondents were humbly told to be honest in completing the questionnaires. They were asked not to answer the items in a rush but to think through the tasks and to provide credible responses. It was suggested that the best time to answer them was when they were less busy. The second part of Section B which is open-type ascertained from respondents what they considered to be the advantages and disadvantages of teaching children with special educational needs in inclusive environments.

The Section C was on attitudes. Fazio (1989) and Fazio and Roskos-Ewoldsen (1994) theory on attitude-to-behaviour process model placed emphasis on the strength of stored knowledge of and experience with the attitude object. In designing this portion, the work of Avramidis et al (2000) became very useful. Avramidis et al (2000) assessed respondents' emotional reactions when required to deal with children with SEN using adjectives such as *'anxious-relaxed'*, '*worried-self-assured.*' There was a table showing five (5) emotional reactions and the ten categories of SEN and disabilities used for Section B. The five (5) paired emotional reactions were: Relaxed and Anxious; Encouraged and Discouraged; Satisfied and Dissatisfied; Confident and Diffident; Self-assured and Worried. Instruction was provided to respondents to indicate with a tick under each category of SEN and disability, the emotional reactions they experienced or were predicted to experience in teaching a child or children with SEN and disabilities.

The second part of Section C was an open item requiring respondents to describe how they would feel when asked to teach or are teaching a child or children with SEN. The purpose of this was to find out if respondents had other emotional reaction(s) that was or were not catered for in the preceding part. The last section, Section D, investigated the influence of teachers' attitudes on instructional decisions. In Azjen's theory of planned behaviour (1988), if behaviour is easy to perform it is rated high in perceived behavioural control, but a difficult one is rated low in perceived behavioural control.

On the basis of Azjen's idea, and the UK three key principles for a more inclusive curriculum (DfES, 2001) and Gross's (2002) model for differentiation, items were built around Instructional Objectives, Teaching Style, and Curriculum Access Strategies. In eliciting this information, some statements were posed and respondents were asked to indicate by ticking one of a 4-point Likert scale response of 1, 2, 3, and 4. These were interpreted as: 1 (Never), 2 (Sometimes), 3 (Often), and 4 (Always).

Sommers and Sommers (2002) feared the possibility of halo effects, and a lack of standard for judging effectiveness, and respondents ticking the most favourable response as they would not want to be seen as less able. In order to minimise the tendency, they suggest that the questions should be specific and personal. In using this scale, the researcher hoped to generate a composite score for each component (Avramidis et al, 2000). The response with the highest score would then indicate what teachers do when asked to teach or are teaching a child or children with SEN. There were twenty-two (22) statements to assess the instructional strategies teachers use when teaching in a mainstream classroom.

Designing interview guide

Fetterman (1989) describes interviewing as the most important data collection technique a qualitative researcher possesses. The purpose of interview is to find out what respondents think or how they feel about something (Fraenkel and Wallen, 1993). Anderson (1998) states that this method is useful when the researcher is interacting 'with a respondent whose every word has potential significance' (p. 187). In adopting the interview procedure, the researcher opted for the Semi-structured Interview. Fraenkel and Wallen (1993) see this approach to consist of series of questions designed to elicit specific answers on the part of respondents and used to obtain information that can later be compared and contrasted. The study compares and contrasts the views of teachers in urban, semi-urban and rural settings and the importance of this procedure cannot be over-emphasised. Tuckman (1972) suggests the following procedures in interviewing:

> At the meeting, the interviewer should again brief the respondent as to the nature or purpose of the interview (being as candid as possible without biasing responses) and attempt to make the respondent feel at ease. He should explain the manner in which he will be recording responses, and if he plans to tape record, he should get the respondent's assent. At all times, an interviewer must remember that he is a data collection instrument and try not to let his own biases, opinions, or curiosity affect his behaviour. It is important that the interviewer should not deviate from his format and interview schedule although many schedules will permit some flexibility in choice of questions. The respondent should be kept from rambling away from the essence of a question, but not at the sacrifice of courtesy (pp. 212, 213).

The researcher aimed to randomly select and personally interview *18 teachers* from the three selected regions. Those who were to be interviewed were to comprise some of those who participated in responding to the questionnaire. In each setting that

is whether urban, semi-urban or rural, two (2) persons made up of trained and untrained teachers would respond to some questions based on some hypothetical scenarios. Frederickson et al (2004) used a method like this in eliciting information from their respondents. There would be ten of these scenarios to cover children who have SEN and disability conditions in the area of: Mild to moderate intellectual difficulty, Severe to profound intellectual difficulty, Emotional and behavioural difficulty, Physical disorder, Health disorder, Deafness, Hard-of-hearing, Blindness, Low vision, and Speech and Language disorder.

The scenario is in the form of: 'A child is reported to have mild to moderate intellectual difficulties. He mixes up well with the peers and does not exhibit any emotional difficulties'. The questions that follow are: Which educational environment should this child be placed to receive education and training and why? If the child is to be taught in mainstream environment, what strategies will be appropriate for meeting his or her needs? (see Appendix B).

Prior to the interview session, the researcher initially expresses his appreciation to the interviewee for accepting to participate in the study and to be interviewed on a study that surveys the beliefs and attitudes teachers in mainstream schools in Ghana hold for children with special educational needs and disabilities and how these influence inclusive practice in the country. The interviewee is given an assurance that his or her name would not be identified in any record that the information he or she would supply is put. In order not to miss out any information an interviewee gives, permission is sought from him or her to tape record what transpires. In the course of the interview, the interviewee is afforded an opportunity to ask questions for purposes of clarifying misunderstood issues. At the same time, an interviewee is told that he or she could be asked to repeat a statement which is not clear to researcher (Fraenkel and Wallen, 1993)

In order to ensure respondents have the same hypothetical scenarios to respond to and for the researcher to be systematic in his approach, there would be an interview guide (see Appendix B). The interview guide would have topics and issues specified in advance (Patton, 1980). The interview guide would have background information of respondents and this would include: gender, age, qualification, teaching experience, and knowledge about children with SEN and disabilities.

Pilot-testing instruments

Pilot-testing questionnaire instrument

The questionnaire instrument (see Appendix A) was pilot-tested in England. The researcher identified eight (8) international teachers, who had taught for sometime in Ghana, prior to migrating to England and were quite familiar with the education system of Ghana. It was felt their feedback could contribute immensely to achieving the objective of the pilot-testing. On the assumption that the eight (8) international teachers selected from England could be directly or indirectly influenced by prevailing cultural practices in the country, seven (7) of the questionnaire instrument were sent by e-mail to some teachers in Ghana to complete. Further, for purposes of scrutinising the style and format of the questionnaire instrument, one (1) of the questionnaire instruments was given to a colleague PhD student from Malaysia to complete. The purpose of the pilot-test was to refine the instrument by checking the clarity of the items, eliminating ambiguity, checking time taken to respond to items and trying out the coding (Cohen et al, 2004; Sommers and Sommers, 2002; Wilson and McLean, 1994; Morrison, 1993; Oppenheim, 1992). On the basis of the pilot-testing, some corrections were made in the questionnaire instrument for data collection from Ghana (see Appendix C).

Pilot-testing interview guide

The interview guide was pilot-tested in England (see Appendix B). Three females who had once taught in some Primary Schools in Ghana were identified in England and interviewed in March 2005. One of the ladies lived with her husband in Birmingham and the other two in Leeds. For ethical considerations, the ladies were informed of the purpose of the pilot-test and to seek for their consent prior to the interview. Initial contacts with them to inform them of the study and to interview them were made on telephone. Since the lady in Birmingham lived with her husband, permission to interview his wife was sought and this was granted. The respondents chose the time and place that were convenient to them. The lady in Birmingham was interviewed on Friday, March 11 2005 between 13.15 and 14.00 hours in Birmingham. The two other ladies were interviewed on March 18th and 21st, 2005 in Leeds.

On the average, the interview held with the three ladies lasted for forty minutes each. There was an indication that the interviewees were interested in the study and

candidly and honestly expressed their opinion about inclusion in Ghana, but they showed exhaustion after the thirtieth minute. Aside from this, in reacting to some of the scenarios, there were occasions when they pre-empted the answers to questions to follow. This was particularly the case for strategies they thought could be appropriate to accommodate children with SEN and disabilities in their classroom. It was therefore decided that whenever this occurred during the data collection stage, such questions would be either skipped or alternatively, interviewees would be asked if they had any other strategies they thought could be suitable for those with SEN and disabilities.

Though the response was generally encouraging for inclusion, the response pattern gave an indication that not all children with SEN and disabilities might be accepted for inclusion in the mainstream. The reasons included the inability of children with SEN and disabilities to cope with classroom routine; wasting teacher and peers' time; teachers' lack of knowledge on adapting the curriculum as well as lack of resources to facilitate teaching and learning.

The piloting gave a clue that respondents would require some time to think of their answers before giving them. Thus, after stating the scenario and posing the question that follow, at least about thirty seconds should be given to allow respondents the time to compose their responses. Another area that the Interview Guide missed out was what teachers considered to be the advantages and disadvantages of teaching children with SEN and disabilities in the mainstream. No provision had been made for it, so it had to be included in the final guide. Another strategy was to play back what was tape recorded to interviewees to add to or change answers given to some of the scenarios. It was found in the course of the interview that some respondents were either not able to express their responses clearly or had lost vital information they wished could have been added. Apart from these, no change was considered necessary in the Interview Guide. On the basis of the pilot-testing, the interview guide was refined (see Appendix D).

Validating instruments

Lincoln and Guba (1985) argue that a demonstration of validity is sufficient to establish reliability. Zigmund (1997) underscores the point that validity is more of the ability of a test to accurately measure the characteristic intended for measurement. But citing Messick (1989) and Nitko (1996), Amedahe (2001) states categorically that 'it is the inferences drawn from the assessment scores and the actions based on them that

are validated and not the assessment instruments themselves' (p. 13). Thus, it is the soundness or appropriateness of interpretations and actions based on assessment score which validation has as focus. In the study, validity was ascertained through face validity and pilot-testing. Face validity is concerned with whether a test superficially appears to measure what it is supposed to measure. The experience of the researcher's two supervisors was critical here. They made good suggestions that helped in refining the items. Through the pilot-testing, items were further refined to meet the intended purpose.

Gathering research data

Questionnaire data

Literature suggests the mailing procedure to be more efficient especially when the postal system is good and the researcher is dealing with a large geographic area (Robson, 2004; and Cohen, Manion and Morrison, 2004). Sommers and Sommers, (2002) have identified the advantages to be in the area of lowering labour and travelling costs and having complete standardisation. This is not to conclude that mail survey has no limitations. According to Sommers and Sommers it can be financially burdensome, have low return rate and may be slow.

In Ghana, the postal system is not reliable. Letters can be delayed, not delivered or get lost. It is always not a guarantee that letters posted would be delivered fast. As a result of this, the researcher would heed to the advice of Robson (2004), Cohen et al (2004) and Sommers and Sommers to use first-class-rapid postage services, with stamped rather than franked envelopes to send questionnaires to selected respondents. The letter would be addressed to a named person and a stamped addressed envelope for return of the questionnaire. In order to enhance the return rate follow-up letters with another stamped addressed envelope would be sent. The importance of the study and the value of respondent's participation were to be stressed.

Before travelling to Ghana, a letter was written to be sent to the Education Directors of the Central, Ashanti and Northern Regions of Ghana for permission to carry out the research in the regions (see Appendix E). Upon arriving in Ghana, I contacted the Central Regional Education Office to give a copy of the permission letter to the Regional Director of Education and to ask for a list of Schools and teachers to be contacted by mail. I was cautioned against the use of the mail since the postal system

in the country was poor. Some scheduled officers intimated that providing the addresses of their teachers to researcher betrayed the trust reposed in them. More important they were not sure their teachers would respond favourably to mail questionnaire. Consequently, they advised that I made personal contacts to the teachers in their schools. In addition to these, it was said that no head teacher of a School would allow me the chance to collect data unless I had permission from the Education authorities. The importance of using Gatekeepers was underscored.

There were two decisions opened to me. Did I have to use the services of research assistants or collect the data myself? Using research assistants meant training and taking care of their travel expenses, feeding and accommodation which I regarded as entailing huge financial burden. Besides, I was not certain whether the types of research assistants I would select could be fully committed to the task to generate credible and reliable research data for making informed decisions. But going for the other alternative meant endangering my health since the teachers were scattered across three regions and were far apart. I found the second alternative a better option in spite of the inherent burden for I was personally there and the research participants could ask questions for purposes of clarification. I found it guaranteed a more credible research data and high return rate since I had time to explain the purpose of the research and provide information on procedures for completing questionnaires.

At each of the Regional Education Offices copies of the permission letter was shown to the Directors who in turn sent letters to the Metropolitan / Municipal and District Directors introducing me and asking them to offer me the assistance in collecting data. While this may be said to raise an ethical issue, the fact remains that I could not have contacted the head teachers directly without permission from appropriate authorities. The District Directors on their part aided by the officers of the Inspectorate and Supervision sections selected some schools to be contacted with attached letters to the heads of the schools to assist me. All the participating schools were listed in the letters (see Appendix F for list of participating schools).

When I got to the Northern Region to commence data gathering, the conditions I met were enough to confirm the fears the education officers had expressed. There were many areas I could not easily contact due to problems with transportation and roads that were not motorable. There were many of the schools I was able to reach on a hired motor bike. In the rural areas of Savelugu-Nanton District, for example, the

circuit officer of the District Education Office assisted a lot in locating and accessing schools.

Interview data

All respondents were given copies of Interview guide to study before the Interview was conducted. Interviewees were given two days to prepare for the interview. The choice was given to them to choose the most suitable time for the interview. These were done to: (1) enhance their confidence level to facilitate interaction between interviewer and interviewees and (2) avoid interrupting and disrupting academic and non-academic activities. None of the participants was compelled to participate in the interview; individuals who accepted to be interviewed did so on their own volition. Those who apparently dreaded the interviews and did not want to participate in it were left out as was revealed in a transcript of a respondent in the Ashanti Region. All who participated in the interview also completed questionnaires.

The sessions were conducted in a warm and friendly atmosphere. The rapport that existed between the interviewer and interviewee was cordial. Interviewees appeared relaxed and comfortable and most of them showed this by regular giggles. In order to have accurate information and to avoid adulterating what respondents said, permission was sought from them to tape record sessions. Since school was in session, the voices of pupils could be heard in the background, but this had little or no effect on the interview sessions nor did it affect tape quality. The sessions lasted for between 20 and 30 minutes ending with an assurance that their names were not going to be mentioned in any form the information supplied was put. At the end of every session, respondents were given the choice to have tape reversed and played back to them. This was done to enable respondents to have the chance to add to and/or correct any information they deemed incomplete or insufficient.

In the next chapter, focus is on how data collected from teachers in Ghana were analysed. Data generated from questionnaire instrument was analysed using descriptive statistics derived from Statistical Package for the Social Sciences (SPSS). There were various variables derived for items in Sections A, B, C and D of questionnaire. The use of the SPSS helped provide information on statistics of respondents' personal profile such as gender, age, qualification, length of teaching experience, whether a teacher had taught or not taught children with SEN and whether

a teacher knew how to teach children with SEN or not. It also enabled researcher to determine frequencies, percentages and to conduct Chi-square test for analysis.

Procedure to analyse data

Chi-square (symbolised by χ^2) is a non parametric test which examines the statistical significance of differences between statistically generated expected and observed frequencies in various categories. It is usually used for quantitative studies. Cohen et al. (2004) state that a chi-square analysis if statistically significant means that overall, there is a relationship or association between two variables which is unlikely to be explained by chance factors. Thus, in this study, it was to find out if there was any significant statistical difference between teachers' observed scores and what might be expected to occur by chance in the wider population. In calculating chi-square test statistics, the probability value was put at 0.01, but since this study was/is more of educational research 0.05 was equally accepted.

In analysing the interview data, a number of steps were followed. For purposes of easy reference, each transcript was to be given identification number, accurately transcribed (Sommers and Sommers, 2002) and summarised for analysis. The transcription was to ensure that no information was lost and to preserve their originality. Some expressions were quoted verbatim to ensure that information was not lost or misrepresented. In the analyses, focus was placed on responses which confirmed the quantitative data.

CHAPTER SIX

DATA ANALYSES

Introduction

This chapter is concerned with analysis of data collected from the mainstream teachers in Ghana to answer the research questions. There are five sections in the analyses namely: A, B, C, D and E. The section A is on analysis of response rate; section B looks at analyses of background data, while in section C, concern is on analyses of educational provision for children with special educational needs (SEN). In section D, there is analysis of emotional reactions; and finally E deals with analysis of interview data.

A. Analysis of response rate

In analysing this data, questionnaires were collated using regional labels and simple percentages used to determine the return rate. Questionnaires were distributed to 540 trained and untrained mainstream teachers in three of the ten regions in the country. Out of this number, 500 were retrieved bringing the total return rate to 92.6% (see Table 6.1). The Northern Region recorded the highest return rate of 96.1% followed by the Central (93.8%). The Ashanti Region (90.2%) was least. Among the untrained who returned their questionnaires for analysis, Ashanti rural (72%) registered the lowest return rate.

The number of the trained teachers who returned their questionnaires for analysis was more than the untrained. This is particularly the case for Northern Region where there was 100% return rate for all the trained teachers in urban, semi-urban and rural areas. The Central Region did better in the semi-urban results in both trained and untrained than the two other regions. In two of the urban areas, that is the Ashanti and Central Regions, no untrained teacher respondents were found to respond to questionnaire.

Table 6.1: Response rates for mainstream school teachers from the three selected regions

LOCATION	NORTHERN REGION			ASHANTI REGION			CENTRAL REGION			TOTAL		
	Sent out	Retrieved	% Retrieved.	Sent out	Retrieved	% Retrieved	Sent out	Retrieved	% Retrieved	Sent out	Retrieved	% Retrieved
Urban (*Trained)*	37	(37)	100	107	100	93.5	53	53	100	197	190	96.4
Urban (*Untrained*)	9	(9)	100	8	0	0	7	0	0	24	9	37.5
Sub Total	46	(46)	100	115	100	87	60	53	88.3	221	199	90
Semi-Urban (*Trained*)	25	(25)	100	72	72	100	35	35	100	132	132	100
Semi-Urban (*Untrained*)	18	(15)	83.3	17	13	76.5	13	13	100	48	41	85.4
Sub Total	43	(40)	93	89	85	95.5	48	48	100	180	173	96.1
Rural (*Trained*)	12	(12)	100	36	36	100	18	18	100	66	66	100
Rural (*Untrained*)	28	(26)	92.8	25	18	72	20	18	90	73	62	84.9
Sub Total	40	(38)	96.1	61	54	88.5	38	36	94.7	139	128	92.1
Grand Total	129	124	96.1	265	239	90.2	146	137	93.8	540	500	92.6

B. ANALYSES OF BACKGROUND DATA

This section shows the results of the background information of teachers who responded to the questionnaire instrument. The demographic variables included gender, age, qualification, length of teaching experience, teaching a child or children with SEN, and knowledge about how to teach a child with SEN. In analysing background data, frequency and percentages were used.

1. Analysis of gender

The results of Table 6.2 show that more females than males participated in the study. Out of the 500 who responded, 283 (56.6%) were females and 217 (43.4%) males. The females outnumbered their male counterparts by 66.

Table 6.2: Gender distribution (N= 500)

	Gender	Frequency	Percent
Valid	male	217	43.4
	female	283	56.6
	Total	500	100.0

2. Analysis of teachers' age

There were 497 respondents who provided information on their age range as the results of Table 6.3 clearly show. More than a third of this number 179 (35.8%) came from the 21-30 age range category followed by the 31-40 category with a score of 139 (27.8%). The 51-60+ category recorded the least score of 58 (11.6%).

Table 6.3: Age distribution (N= 497)

	Age range	Frequency	Percent
Valid	21-30	179	35.8
	31-40	139	27.8
	41-50	121	24.2
	51-60	58	11.6
	Total	497	99.4
Missing	99.00	3	0 .6
	Total	500	100.0

3. Analysis of teachers' qualification

There were 478 who provided information on their qualification as the results of Table 6.4 show. The A 3 Year and A 4 Year groups composing about 71% were the largest of the trained respondents. But the number falls to about five percent (5%) of those possessing degrees and diplomas. Of the untrained, the Senior Secondary School Certificate Examination (SSSCE) category formed about 10%. But there is a reduction in the number to 8% of those possessing General Certificate of Examination Ordinary Level (GCE O'L) and Advanced Level. Those holding Basic School Certificate Examination (BECE) formed 6%. With almost 5% of the respondents not providing any information on their qualification, this item becomes the least responded to item in the section on background.

Table 6.4: Qualification (N = 478)

Type of Qualification	Frequency	Percent
Basic School Certificate Examination (BECE)	3	0.6
Senior Secondary School Certificate Examination. (SSSCE)	51	10.2
General Cert. of Examination Ordinary Level (GCE O'L)	28	5.6
General Cert. of Examination Advanced Level (GCE A'L)	13	2.6
A 4 Year	154	30.8
A 3 Year	204	40.8
Diploma in Education	12	2.4
Degree holder in Education.	13	2.6
Any other	22	4.4
Total	500	100.0

4. Analysis of teachers' length of teaching experience

There were 498 who provided information on the length of their teaching experience. Of this figure, about 50% had had more than 10 years teaching experience, while 10% of the respondents had less than 1 year teaching experience (see results of Table 6.5). But while those with 1-3 and 4-6 length of teaching experience formed about 15% and 16%, respectively, the 7-9 years (9.4%) were fewest.

Table 6.5: Length of Teaching Experience (N= 498)

Number of years		Frequency	Percent
Valid	Less than 1 year	50	10.0
	1-3 years	77	15.4
	4-6 years	79	15.8
	7-9 years	47	9.4
	10 years or more	245	49.0
	Any other	2	0.4
	Total	500	100.0

5. Analysis of level of experience

More than 60% of the respondents had in their teaching career taught a child or children with special educational needs (SEN). Evidence on Table 6.6 reveals that the number that had done this was 337 (67.4%). Those who had not were 163 (32.6%).

Table 6.6: Have you in your teaching career taught a child or children with special educational needs (SEN)? (N = 500)

Response		Frequency	Percent
Valid	Yes	337	67.4
	No	163	32.6
	Total	500	100.0

6. Analysis of knowledge about how to teach a child with SEN

There were 335 (67%) who reported having knowledge about how to teach children with special educational needs and 165 (33%) who said they had no knowledge (see Table 6.7).

Table 6.7: Do you have any knowledge about how to teach children with special educational needs? (N = 500)

Response		Frequency	Percent
Valid	Yes	335	67.0
	No	165	33.0
	Total	500	100.0

To conclude, the results of the background information show that the effort made to achieve a representative sample for the study has been largely successful. There was evidence that samples obtained for teachers in terms of gender, age, qualification, length and level of teaching experience and knowledge about how to teach a child with SEN were not dissimilar to the general population for which generalisation could be made.

C. ANALYSES OF EDUCATIONAL PROVISION FOR CHILDREN WITH SPECIAL EDUCATIONAL NEEDS (SEN)

AI. Measuring teachers' preference of educational provision for children with special educational needs on the basis of type of SEN

This section is devoted to the analyses of the preference of educational placement teachers made or predict to make for children with SEN based on a child's type of SEN. It is divided into ten parts with the numbers AI, AII, BI, BII, BIII, BIV, BV, BVI, CI and CII. In analysing AI, frequency and percentages were used and a table for illustrating. However, from AII to CII, analysis was done by first working out proportions using percentages (%) and where necessary, illustrating with tables and vertical bar graphs. This was followed by chi-square test statistics. Since the first aim of the study was to answer the question on type of educational provision, the five educational placement options were recoded into three categories of educational provisions using levels of support. These were:

- Mainstream without any support (for the first type of educational provision on 'teach without help from others');
- Mainstream with support (for the three types of educational provisions, namely 'teach with consultation'; 'teach with special education teachers teaching alongside'; and 'teach with a resource room'); and
- Segregation (for the last type of educational provision on 'none, child should go to special school').

The analyses were guided by the following:

i. Type of mainstream (that is between mainstream without any support and mainstream with support), which would teachers be more supportive of?
ii. Between mainstream (that is mainstream without any support and mainstream with support) and segregation, which would teachers be more positive towards?

In the part 1, the results showed that between mainstream and segregation (see the summary on Table 6.8), teachers were more positive to mainstream than segregation. It was only those with deafness and blindness which teachers were negative about and indicated segregation. As three separate educational provisions, it was found that in the mainstream without support, teachers were more positive towards three of the SEN categories. These were:

- Mild to moderate intellectual difficulties {275 (55%)}
- Health disorders. {228 (45.6)} and

- Physical disorders {275 (55%),

For each of the three SEN categories, appreciable number of the teachers said they could teach them without any support. The number of teachers for mild to moderate intellectual difficulties and physical disorders was the same {275 (55%)}. The SEN categories teachers were least prepared to teach in the mainstream without support were the:

- Blind {10 (2%)}
- Deaf {17 (3.4)}
- Speech and language difficulties {103 (20.6)}, and
- Hard-of-hearing {111 (22.2)}

In the mainstream with support the trend was towards five of the SEN categories namely:

- Severe to profound intellectual difficulties {317 (63.4%)}
- Emotional and behavioural difficulties {280 (56%)};
- Hard-of-hearing {251 (50.2%)};
- Low vision or partially sighted {256 (51.2%)}; and
- Speech and language difficulties {280 (56%)}.

Seemingly, the severe to profound intellectual difficulties required the most support. Teachers mostly identified two of the SEN categories for segregation. These were:

- Blindness {367 (73.4%) and
- Deafness {336 (67.2%)}.

More than two-thirds of the teachers indicated that the deaf (67%) and the blind (73%) should be placed in special school and thus segregated. There were less than 4% of the respondents who said they could teach the deaf and blind in the mainstream. Also, about a third of the respondents would segregate the severe to profound intellectual difficulties and hard-of-hearing.

There was an indication that both the nature and severity of a disability could affect the level of acceptability of children with SEN in the mainstream of education. A comparison of the results of the mild to moderate intellectual difficulties and severe to profound intellectual difficulties gave an indication that teachers were more positive for mainstreaming children with mild to moderate intellectual difficulties than those with severe to profound intellectual difficulties. Similarly, teachers were more positive to the hard-of-hearing than the deaf; and more favourable of the low vision than the blind.

Table 6.8: Summary of teachers' scores on preference of educational provision for ten categories of children with SEN

SEN CATEGORY	Number of Respondents (N)	Mainstream without any support		Mainstream with support		Segregation	
		Freq	%	Freq	%	Freq	%
Mild to moderate intellectual difficulties	499	275	55.0	200	40	24	4.8
Health disorders	499	228	45.6	212	42.4	59	11.8
Physical disorders	499	275	55.0	162	32.4	62	12.4
Severe to profound intellectual difficulties	499	46	9.2	317	63.4	136	**27.2**
Emotional and behavioural difficulties	499	184	36.8	280	56.0	35	7.0
Hard-of-hearing	499	111	22.2	251	50.2	137	**27.4**
Low vision	497	183	36.6	256	51.2	58	11.6
Speech and language difficulties	499	103	20.6	280	56.0	116	23.2
Deafness	499	17	3.4	146	29.2	336	**67.2**
Blindness	498	10	2.0	121	24.2	367	**73.4**

Note: The highlighted shows highest scores of teachers for each categories.

AII. Measuring teachers' preference of educational provision on the basis of the nature and degree of SEN

Realising that a greater number of the teachers wanted the deaf and blind to go to Special Schools, I began to raise questions as to why most of the teachers indicated preference of segregation for the deaf and blind. Could this probably be attributed to the existence of special Schools for the Deaf and Blind in Ghana? Would there be any difference in the results if all the SEN categories which are normally educated in special schools were excluded from the analyses? This would include the blind, deaf and severe to profound intellectual difficulties. Evidently, the existence of special schools could impact positively or negatively on respondents' choice of educational provision for the deaf and blind.

I therefore decided to perform some analysis for more information by working out proportions using percentages (%) and where necessary, illustrating with tables and vertical bar graphs. The next was to conduct chi-square test statistics. Analysis was done for all the ten (10) SEN categories including the severe to profound intellectual difficulties, deaf and the blind. Subsequently, analysis was done for eight of the SEN categories (excluded the deaf and blind) and then seven SEN categories (excluded the severe to profound intellectual difficulties, deaf and blind). In calculating proportions (%), figures were based on sample statistics of sums of observed scores for the SEN categories.

Figure 6.1 give information on the results of the three analyses. It was found that all the teachers regarded the mainstream with support as the most favourable of the three types of educational provisions. The next was the mainstream without support. Segregation was seen as the most unfavourable. In the questionnaire data therefore, segregation was regarded as the least preferred educational provision for children with SEN. It was noticeable in the results that with decrease in the number of SEN, there was a corresponding increase in preference of mainstream education particularly in mainstream without support and a decrease in segregating children with SEN.

In the chi-square tests, the results of the ten (10) SEN categories (see the summary on Table 6.9) showed that significant statistical relationship existed in all the ten SEN categories. It was again found that the exclusion of the deaf and blind made little or no difference to their being significant as all but the low vision recorded significant statistical relationship (see the summary on Table 6.10). In the results of the

seven SEN categories (excluding the severe to profound intellectual difficulties, deaf, and blind), significant statistical difference was found in five of the SEN categories but not in health disorders and low vision (see the summary on Table 6.11).

The results have shown that irrespective of diverse range of children with SEN, mainstream teachers would be able to teach without any support the mild to moderate intellectual difficulties, physical and health disorders in the mainstream. The chi-square tests revealed that in the analysis of the ten SEN categories, all the ten were statistically significant. However, the exclusion of the deaf and blind did not make the low vision significant though the seven others were. Further, by adding the severe to profound intellectual difficulties to the excluded, only five of the SEN categories became statistically significant at 0.01 level.

Figure 6.1: Teachers' preference of educational provision for children with SEN by all teachers.

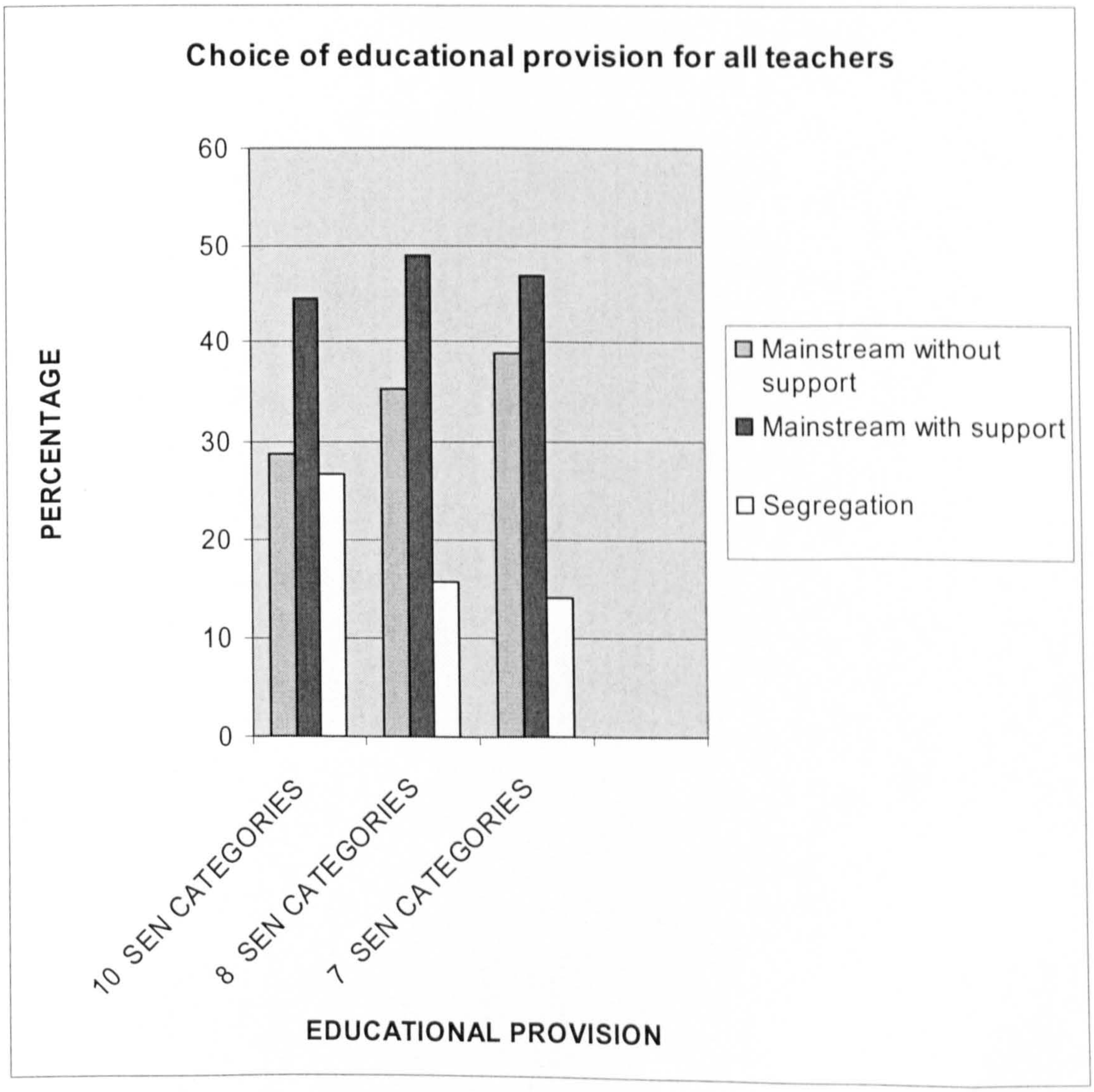


Table 6.9: Summary of Chi-sq (χ^2) statistic for ten SEN categories (N=499)

SEN CATEGORIES	Mainstream without support		Mainstream with support		Segregation		Total (N)	Chi-sq (χ^2)	Sig.
	Obs	Exp	Obs	Exp	Obs	Exp			
Mild to mod intellectual difficulties	275	143.2	200	222.6	24	133.2	499	191.5053	S
Emotional and behavioural difficulties	184	143.2	280	222.6	35	133.2	499	93.812	S
Physical disorders	275	143.2	162	222.6	62	133.2	499	153.2373	S
Health disorders	228	143.2	212	222.6	59	133.2	499	83.1548	S
Hard-of-hearing	111	143.2	251	222.6	137	133.2	499	10.1040	S
Low vision	183	142.6	256	221.7	58	132.7	497	56.0058	S
Speech and language difficulties	103	143.2	280	222.6	116	133.5	499	25.7123	S
Severe. to profound intellectual difficulties	46	143.2	317	222.6	136	133.2	499	99.0664	S
Deafness	17	143.2	146	222.6	336	133.2	499	381.7608	S
Blindness	10	142.9	121	222.1	367	133.0	498	490.1789	S
Total	1432	1432	2225	2225	1330		4987		

df =2

For significance at $p<0.01$ critical value should be ≥ 9.210; and for significance at $p<0.05$, critical value should be ≥ 5.991.

Key

S represents existence of significant statistical relationship

Table 6.10: Summary of Chi-sq (χ^2) statistic for eight SEN categories (N=499)

	Mainstream without support		Mainstream with support		Segregation		Total (N)	Chi-sq (χ^2)	Sig.
SEN CATEGORIES	Obs	Exp	Obs	Exp	Obs	Exp			
Mild to mod Intellectual difficulties	275	175.7	200	244.8	24	78.4	499	90.7474	S
Emotional and behavioural difficulties	184	175.7	280	244.8	35	78.4	499	27.5198	S
Physical disorders	275	175.7	162	244.8	62	78.4	499	75.9491	S
Health disorders	228	175.7	212	244.8	59	78.4	499	21.7618	S
Hard-of-hearing	111	175.7	251	244.8	137	78.4	499	58.1460	S
Low vision	183	175.0	256	243.9	58	78.1	497	5.5894	NS
Speech and lang. d	103	175.7	280	244.8	116	78.4	499	47.6462	S
Severe to profound intellectual difficulties	46	175.7	317	244.8	136	78.4	499	145.7563	S
Total	1405	1405	1958	1958	627	627	3990		

df =2

For significance at $p<0.01$ critical value should be ≥ 9.210; and for significance at $p<0.05$, critical value should be ≥ 5.991.

Key

S represents existence of significant statistical relationship

NS represents lack of statistical relationship

Table 6.11: Summary of Chi-sq (χ^2) statistic for seven SEN categories (N=499)

SEN CATEGORIES	Mainstream without support		Mainstream with support		Segregation				
	Obs	Exp	Obs	Exp	Obs	Exp	Total (N)	Chi-sq (χ^2)	Sig.
Mild to moderate. Intellectual difficulties	275	194.2	200	2360 60 4.5	24	70.2	499	61.4285	S
Emotional and behavioural. difficulties	184	194.2	280	234.5	35	70.2	499	24.4592	S
Physical Disorders	275	194.2	162	234.5	62	70.2	499	49.1928	S
Health Disorders	228	194.2	212	234.5	59	70.2	499	8.5329	S at 0.05
Hard-of-hearing	111	194.2	251	234.5	137	70.2	499	83.7211	S
Low vision	183	193.5	256	233.7	58	69.9	497	4.1663	NS
Speech and Language Difficulties	103	194.2	280	234.5	116	70.2	499	71.5610	S
Total	1359	1359	1641	1641	491	491	3491		

df=2

For significance at $p<0.01$ critical value should be ≥ 9.210; and for significance at $p<0.05$, critical value should be ≥ 5.991.

Key

S represents existence of significant statistical relationship

NS represents lack of statistical relationship

BI. Measuring differences in teachers' preference of educational provisions for children with SEN on the basis of gender

Figure 6.2 show the results of the three forms of analyses for both male and female teachers on preference of educational provision using the sample ratio of 217:283. Between mainstream and segregation, both were more supportive of mainstream than segregation. In the statistics of the ten SEN categories, about 72% male and 75% female teachers' favoured mainstream education. In the three educational provisions, the mainstream with support had the highest support followed by mainstream without support. In mainstream without support educational provision, no gender difference was observed. However, the raw data created the impression that more female teachers supported the mainstream with support and more male favoured segregation. The three results, showed more male than female favoured segregation.

In the analysis of the ten (10) SEN categories, for example (see summary of Table 6.12), there were 28.2% male but 25.2% female teachers and in the seven (7), there were 15.8% male teachers but 12.8% female teachers who wanted segregation. This meant that male teachers were more likely to favour segregating children with SEN than their female counterparts. It was also found that the exclusion of some SEN categories from the analysis led to a reduction in the number of male and female teachers supporting segregation. Whereas in the ten (10) SEN categories a one-quarter of the sampled population of male and female teachers supported segregation, in the eight (8) and seven (7) SEN categories, less than a quarter supported it.

However, in the chi-squared tests for the ten SEN categories (see summary on Table 6.12) none of the ten (10) SEN categories showed any difference at 0.01 level. It was only in physical disorders and health disorders (χ^2 =6.165, $p<0.05$ and χ^2 =8.330, $p<0.05$, respectively) that significant statistical difference was observed. Physical examination of the cross tabulation scores showed that the male teachers preferred that those with physical and health disorders should be segregated in spite of higher observed scores in mainstream without support (for physical disorders) and mainstream with support (for health disorders). But in the other SEN categories, no significant differences were found between male and female teachers.

It is therefore found that both male and female teachers supported teaching children with SEN in the mainstream but they were more supportive where there was support for the teacher in the mainstream. The raw data gave the impression that male teachers were relatively more in favour of segregation than the female teachers. There

was also an indication that the exclusion of the severe to profound intellectual difficulties, deaf and blindness from the mainstream increased the number of male and female teachers favouring the education of children with SEN in the mainstream. However, it was found that in the chi-squared tests statistical significant differences could be found between male and female teachers in teaching children only in physical disorders and health disorders. Apart from these two, no difference was found between the eight other SEN categories.

Figure 6.2: Teachers' preference of educational provision for children with SEN by gender.

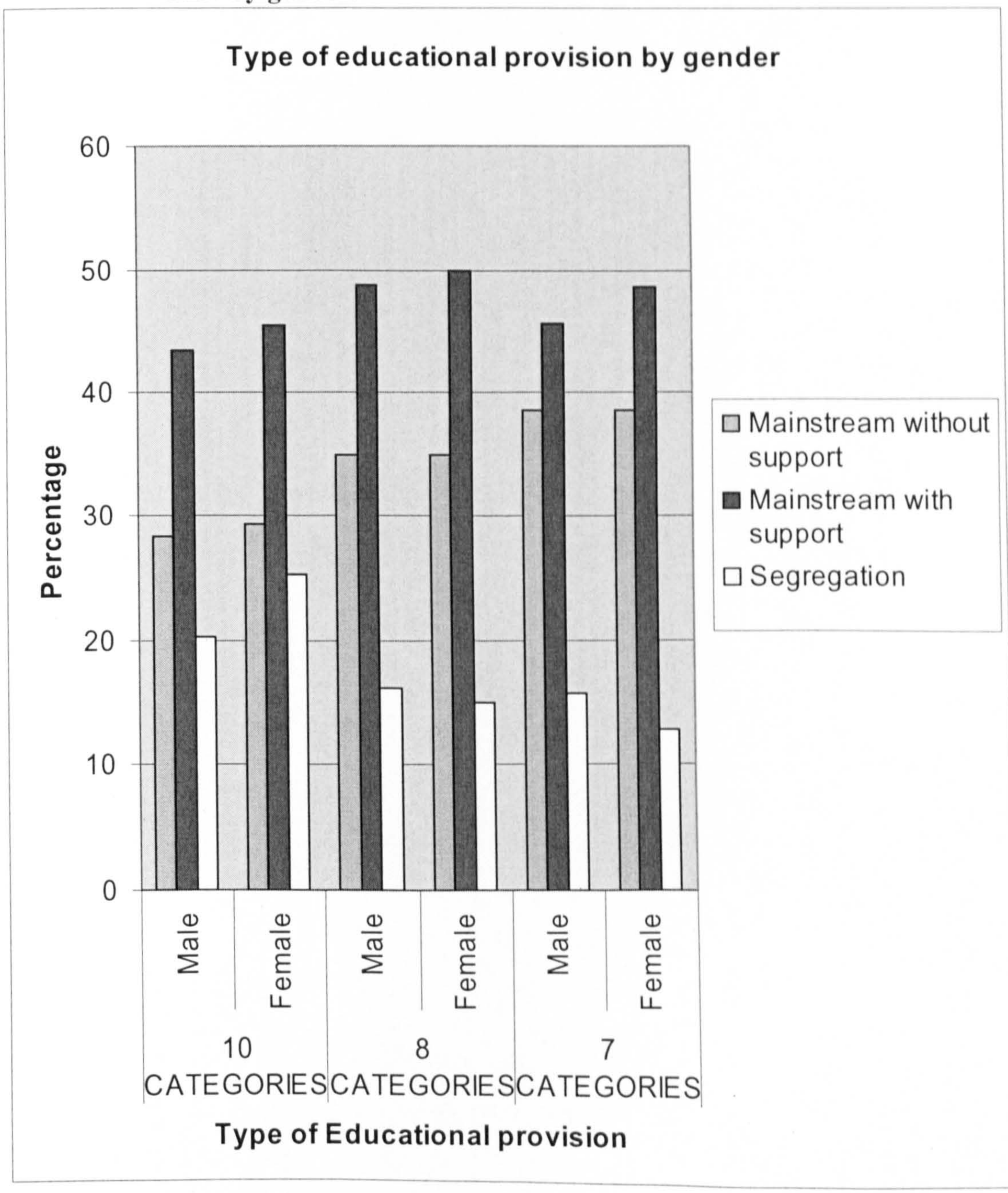


Table 6.12: Summary of Chi-sq (χ^2) statistics on teachers' preference of educational provisions for ten SEN categories by gender

	Mainstream without support					Mainstream with support				
	Male		Female			Male		Female		
SEN CATEGORIES	obs	exp	obs	exp	Total	obs	exp	obs	exp	Total
Mild to moderate intellectual difficulties	124	119.6	151	155.4	275	78	84.6	122	113.0	200
Emotional and behavioural difficulties	81	80.0	103	104.0	184	118	121.8	162	158.2	280
Physical Disorders	123	119.6	152	155.4	275	60	70.4	102	91.6	162
Health Disorders	86	99.2	142	128.8	228	97	92.2	115	119.8	212
Hard-of-hearing	51	48.3	60	63.1	111	109	109.2	142	141.8	251
Low vision	82	79.5	101	103.5	183	104	111.3	152	144.7	256
Speech and language difficulties	41	44.8	62	58.2	103	121	121.8	159	158.2	280
Severe to profound intellectual difficulties	20	20	26	26	46	149	137.9	168	179.1	317
Deafness	7	7.4	10	9.6	17	59	63.5	87	82.5	146
Blindness	3	4.4	7	5.6	10	46	51.7	75	68.3	121
Total	618		814		1432	941		1284		2225

Table 6.12: (contn) Summary of Chi-sq (χ^2) statistic on teachers' preference of educational provisions for ten SEN categories by gender

TEN (10) SEN CATEGORIES	Segregation					Chi-sq (χ^2) Value	Sig.
	Male		Female		Total		
	obs	exp	obs	exp			
Mild to moderate intel. diff.	15	10.4	9	13.6	24	5.457	NS
Emotional and behavioural. diff.	18	15.2	17	19.8	35	1.125	NS
Physical disorders	34	27.0	28	35.0	62	6.165	S at 0.05
Health disorders	34	25.7	25	33.3	59	8.330	S at 0.05
Hard-of-hearing	57	59.6	80	77.4	137	0.471	NS
Low vision	30	25.2	28	32.8	58	2.585	NS
Speech and language difficulties	55	50.4	61	65.6	116	1.304	NS
Severe to profound intel . difficulties	48	59.1	88	76.9	136	5.309	NS
Deafness	151	146.1	185	189.9	336	0.888	NS
Blindness	168	159.9	199	207.1	367	2.993	NS
Total	610		720		1330		

df = 2

For significance at p‹0.01 critical value should be ≥9.210; and for significance at p‹0.05, critical value should be ≥5.991.

Key

S represents existence of significant statistical relationship

NS represents lack of statistical relationship

BII. <u>Measuring differences in teachers' preference of educational provisions for children with SEN on the basis of teachers' age</u>

To find out the impact of a teacher's age on preference of educational provision for children with SEN, proportions (%) were found using sample ratios of 179:139:121:58 for 21-30; 31-40; 41-50; and 51-60, respectively. The results (see summary on Figure 6.3) did not show any difference between age groups. However, there was no trend; it could not be said, for instance, that with increasing age, support for mainstream increased or decreased. This was the case for the entire results. Between mainstream (without and with support) and segregation it was found that about 72% of the 21-30, 74% of the 31-40, 73% of the 41-50, and 74% of the 51-60

supported mainstream education. These could be compared to the 28% 21-30, 26% 31-40, 27.2% 41-50, and 25.2% 51-60 for segregation.

Between the three types of educational provisions, the teachers were more supportive of the mainstream with support than the mainstream without support or segregation. The 41 to 50 years (46%) and 21 to 30 year olds (45.2%) appeared to show relatively more support for the mainstream with support option than the 31 to 40 years of age (43.2%) or 51-60 years of age.

Further, in the mainstream without support, age seemingly had no influence. There were 32% of the 51-60 but was followed by 31-40 (31.2%), while a score of 27.2% each was obtained by the 21-30 and 41-50. Thus the 21 to 30 and 41 to 50 years of age were the least supportive of the mainstream without support educational provision. The 21 to 30 appeared to be the most supportive of segregation, but their score of 28% was not too different from what the others obtained. This meant that age seemingly had no influence on teachers' acceptance of children for inclusion.

In the chi-squared tests to verify any differences between teachers' on the basis of age, at both 0.01 and 0.05 levels, none of them was found to be statistically significant (see summary on Table 6.13). This meant that in all the SEN categories, no significant differences were found between teachers of all ages.

Thus, age did not seem to exert any influence on the choice of educational provision for children with SEN. Teachers of all ages supported mainstream education for children with SEN more than they did for segregation. Between the three types of educational provisions, they were more in favour of the mainstream with support.

Figure 6.3: Showing teachers' preference of educational provision for children with SEN on the basis of age

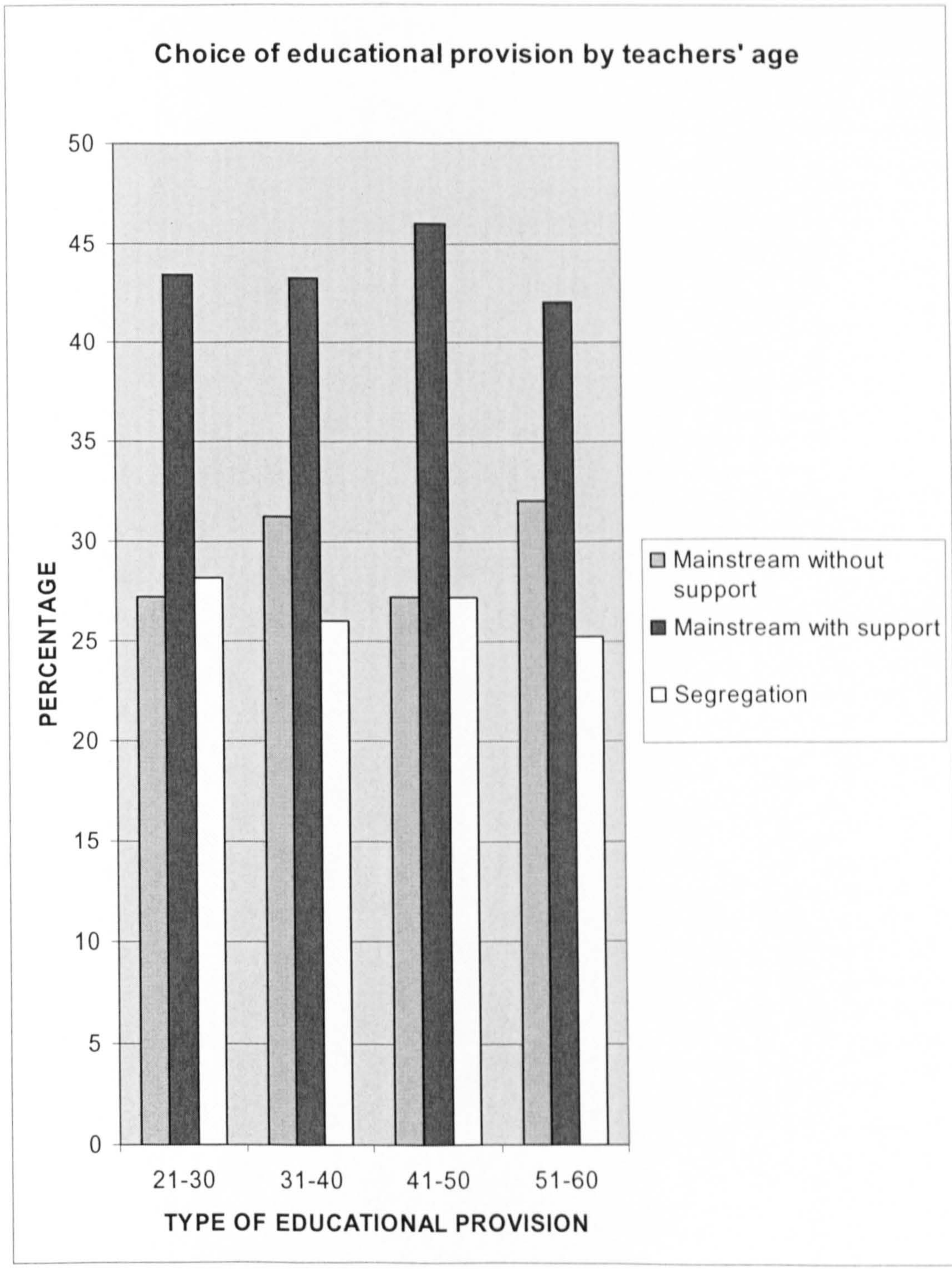


Table 6.13: Summary of Chi-sq (χ^2) statistics on preference of educational provision for children with SEN on the basis of teachers' age

TEN (10) SEN CATEGORIES	Mainstream without support									Mainstream with support								
	21-30 years		31-40 years		41-50 years		51-60		Tot	21-30 years		31-40 years		41-50 years		51-60 years		Tot
	obs	exp	obs	exp	obs	exp	obs	exp		obs	exp	obs	exp	obs	exp	obs	exp	
Mild to moderate int.	92	99.9	81	76.5	64	67.1	38	32.2	275	74	71.1	52	54.8	51	48.1	20	23.0	197
Emot and beh difficulties	63	65.7	50	50.6	38	44.4	31	21.3	182	100	100.7	77	77.6	77	68.1	25	32.6	279
Physical disorders	92	99.2	80	76.5	68	67.1	35	32.2	275	59	57.4	41	44.2	41	38.8	18	18.6	159
Health disord	74	82.3	66	63.4	63	55.6	25	26.7	228	83	75.4	54	58.1	49	51.0	23	24.4	209
Hard-of-hear	35	39.7	35	30.6	26	26.8	14	12.9	110	96	89.9	66	69.3	61	60.7	26	29.1	249
Low Vision	68	65.6	53	50.8	38	44.2	23	21.4	182	88	91.5	69	71.0	71	61.7	26	29.8	254
Speech and language difficulties	33	36.8	35	28.4	22	24.9	12	11.9	102	96	100.3	75	77.3	76	67.8	31	32.5	278
Severe to prof. intell difficulties	21	16.6	12	12.8	6	11.2	7	5.4	46	115	113.3	88	87.4	71	76.6	40	36.7	314
Deafness	7	6.1	8	4.7	1	4.1	1	2.0	17	51	52.3	40	40.3	36	35.4	18	17.0	145
Blindness	2	3.6	5	2.8	1	2.4	2	1.2	10	42	43.4	35	33.5	26	29.3	17	13.8	120
Total	487		425		327		188		1427	804		597		559		244		2204

Table 6.13: (contn) Summary of Chi-sq (χ^2) statistics on preference of educational provision for children with SEN on the basis of teachers' age

TEN (10) SEN CATEGORIES	Segregation								Total	Chi-sq (χ^2) Value	Sig
	21-30 years		31-40 years		41-50 years		51-60 years				
	obs	exp	obs	exp	obs	exp	obs	exp			
Mild to moderate intellectual difficulties	13	8.7	5	6.7	6	5.9	0	2.8	24	8.243	NS
Emotional and behavioural difficulties	16	12.6	11	9.7	6	8.5	2	4.1	35	11.329	NS
Physical disorders	28	22.4	17	17.3	12	15.1	5	7.3	62	4.141	NS
Health disorders	22	21.3	18	16.4	9	14.4	10	6.9	59	6.830	NS
Hard-of-hearing	48	49.4	37	38.1	34	33.4	18	16.0	137	2.552	NS
Low Vision	22	20.9	16	16.2	11	14.1	9	6.8	58	4.701	NS
Speech and language difficulties	50	41.9	28	32.3	23	28.3	15	13.6	116	6.880	NS
Severe to prof. int difficulties	43	49.1	38	37.8	44	33.2	11	15.9	136	10.663	NS
Deafness	121	120.5	90	92.9	84	81.5	39	39.1	334	5.546	NS
Blindness	135	132.0	98	101.8	94	89.2	38	42.0	365	6.034	NS
Total	498		358		323		147		1326		

df=6

For significance at $p<0.01$ critical value should be ≥ 16.81; and for significance at $p<0.05$, critical value should be ≥ 12.59.

Key

NS represents lack of statistical relationship

BIII. Measuring teachers' preference of educational provisions for children with SEN on the basis of teachers' qualification

This part of the analysis dealt with differences in preference of educational provision for children with SEN using teachers' qualification as basis, that is, between trained and untrained teachers. The number of the trained was 383 and comprised:

i. A 4 Year (154)
ii. A 3 Year (204),
iii. Diploma in Education (12) and
iv. Degree in Education (13)

The number of the untrained was 95. The untrained were composed of:

v. Basic School Certificate Examination (BECE) (3)
vi. Senior Secondary School Certificate Examination (SSSCE) (51)
vii. General Certificate of Examination Ordinary Level (GCE O' L) (28)
viii. General Certificate of Examination Advanced Level (GCE A' L) (13)

Calculations were based on an approximated ratio of 382:95 for trained and untrained, respectively (The trained did not tick 13 items in all). Between mainstream (without and with support) and segregation (see summary on Figure 6.4) both the trained (74%) and untrained (72%) supported mainstream. But between the three educational provisions, no difference was noticed between the trained and untrained in mainstream with support. However, the raw scores gave the impression that the trained were more supportive of the mainstream without support (29.2%) than the untrained (26.2%). But more of the untrained (27.2%) supported segregation than the trained (26.2%). This meant that in choosing between the mainstream without support and segregation, more of the trained would opt for mainstream without support and the untrained, segregation.

However, in the chi-squared tests (see summary on Table 6.14), there was no significant statistical difference at 0.01. It was at 0.05 levels that two of the SEN categories became significant. These were mild to moderate intellectual difficulties (χ^2 =7.327; p=0.05) and severe and profound intellectual difficulties (χ^2 =6.888; p=0.05). Physical observation of cross tabulation scores showed that in the mild to moderate intellectual difficulties the trained had better preference. On the other hand, the untrained had a choice for the severe and profound intellectual difficulties. This meant

that in the other SEN categories, no significant differences were found between trained and untrained teachers.

To sum up, the raw scores suggested that both the trained and untrained favoured mainstream education more than they did for segregation. More of the trained rather than the untrained said they would support the mainstream without support in teaching children with SEN in the mainstream. But when it came to segregating, more of the untrained were in favour. In the ten SEN categories, no statistical significant difference was found between the trained and untrained at the 0.01 level. However, at 0.05 level, the mild to moderate intellectual difficulties and severe and profound intellectual difficulties were statistically significant.

Figure 6.4: Showing preference of educational provision for children with SEN by trained and untrained teachers

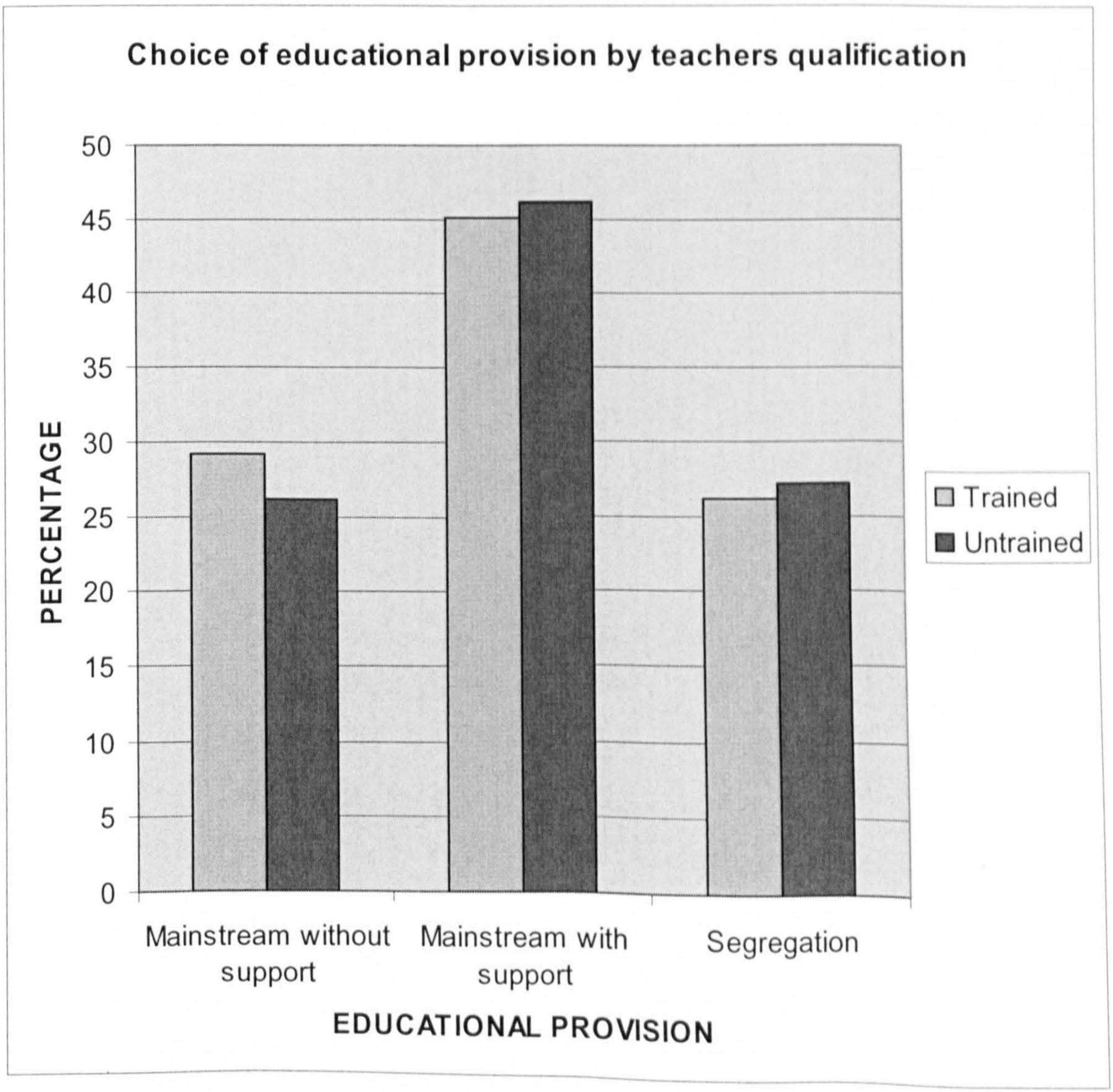


Table 6.14: Summary of Chi-sq (χ^2) statistics on preference of educational provision for children with SEN by trained and untrained teachers

TEN (10) SEN CATEGORIES	Mainstream without support					Mainstream with support				
	Trained		Untrained		Total	Trained		Untrained		Total
	obs	exp	obs	exp		obs	exp	obs	exp	
Mild to moderate Intellectual difficulties	221	209.8	41	52.2	262	146	154.6	47	38.4	193
Emotional and behavioural difficulties	145	142.5	33	35.5	178	212	213.0	54	53.0	266
Physical disorders	215	209.8	47	52.2	262	124	125.7	33	31.3	157
Health disorders	177	172.2	38	42.8	215	162	163.4	42	40.6	204
Hard-of-hearing	84	85.7	23	21.3	107	197	194.6	46	48.4	243
Low Vision	149	140.8	27	35.2	176	190	194.4	53	48.6	243
Speech and language difficulties	73	76.9	23	19.1	96	219	217.8	53	54.2	272
Severe to profound Intellectual difficulties	30	33.6	12	8.4	42	241	246.7	67	61.3	308
Deafness	13	12.0	2	3.0	15	112	112.1	28	27.9	140
Blindness	7	7.2	2	1.8	9	99	93.6	18	23.4	117
Total	1114		248		1362	1702		441		2143

Table 6.14: (contn) Summary of Chi-sq (χ^2) statistics on preference of educational provision for children with SEN by trained and untrained teachers

TEN (10) SEN CATEGORIES	Segregation					Chi-sq (χ^2) Value	Significance
	Trained		Untrained		Total		
	obs	exp	obs	exp			
Mild to mod. int. df	15	17.6	7	4.4	22	7.327	S (at 0.05)
Emot. and beh. diff.	25	26.4	8	6.6	33	0.623	NS
Physical disorders	43	46.4	15	11.6	58	2.048	NS
Health disorders	43	46.4	15	11.6	58	2.021	NS
Hard-of-hearing	101	101.7	26	25.3	127	0.340	NS
Low Vision	41	44.8	15	11.2	56	4.497	NS
Speech and lan.diff.	90	87.3	19	21.7	109	1.437	NS
Sev. to prof. int dif.	111	101.7	16	25.3	127	6.888	S (at 0.05)
Deafness	257	257.9	65	64.1	322	0.423	NS
Blindness	275	280.1	75	69.9	350	2.035	NS
Total	1001		261		1262		

df=2

For significance at $p<0.01$ critical value should be ≥ 9.210; and for significance at $p<0.05$, critical value should be ≥ 5.991.

Key:

S represents existence of significant statistical relationship

NS represents lack of statistical relationship

BIV. Measuring teachers' preference of educational provisions for children with SEN on the basis of length of teachers' teaching experience

In this section, the analysis is concerned with differences in the preference of educational provisions for children with SEN on the basis of length of teaching experience. The sample ratio of 50:77:78:47:245 for teachers with less than 1 year, 1-3 years, 4-6 years, 7-9 years and 10 years or more teaching experience, respectively were used for calculations. One of the 4-6 years group did not respond to the items that solicited information on educational provision for children with SEN.

The results (see summary on Figure 6.5), showed that between mainstream and segregation, length of teaching experience appeared not to have had any significant influence on teacher acceptance of children with SEN in mainstream. As the statistics show in order of descendance, there were 77% of the 7-9 years of experience; 74% of the 10 years or more years of experience; 70.5% of the 4-6 years of experience; and 69% of the less than 1 year of experience who supported mainstream education.

In the three types of educational provisions (see summary on Figure 6.5), it was found that all the teachers, irrespective of their length of teaching experience, saw the mainstream with support as the most favourable educational provision. Even though the 1-3 years of experience had the highest score of 46.5%, it was found that this score was not significantly different from the 46% which the 7-9 years obtained. And in the area of segregation, while the less than 1 year teaching experience obtained a score of 31%, the 4-6 years had 29% making it difficult to say that length of teaching experience had influence on accepting or not accepting children with SEN for inclusion.

In the chi-square test no significant difference was observed in any of the SEN categories at both 0.01 and 0.05 levels (see summary on Table 6.15). There was therefore no indication that teacher's length of teaching experience had any influence on choice of educational provision for children with SEN. Teachers' support for mainstream education was generally more than segregation but within it, the mainstream with support appeared to be what all the teachers, irrespective of length of teaching experience regarded as most appropriate for teaching children with SEN.

Figure 6.5: Showing preference of educational provisions for children with SEN on the basis of length of teachers' teaching experience

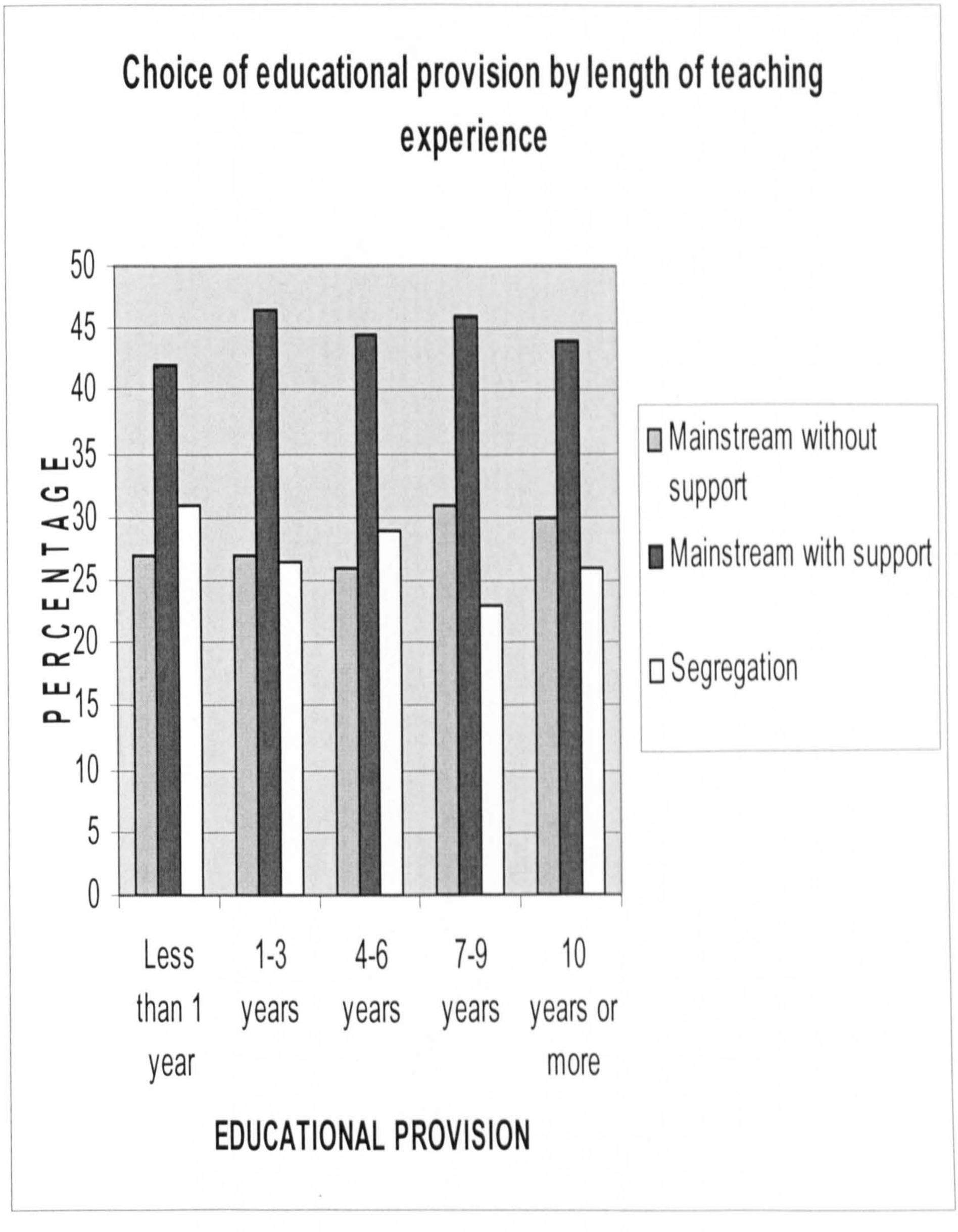


Table 6.15: Summary of Chi-sq (χ^2) statistics on preference of educational provisions for children with SEN on the basis of length of teachers' teaching experience

TEN (10) SEN CATEGORIES	Mainstream without support											Mainstream with support										
	< 1 year teaching experience		1 – 3 yrs teaching experience		4 – 6 yrs teaching experienc		7 – 9 yrs teaching experienc		10 or > yrs teaching experience			< 1 year teaching experienc		1 – 3 yrs teaching experienc		4 – 6 yrs teaching experience		7 – 9 yrs teaching experience		10 or > yrs teaching experience		
	obs	exp	obs	exp	obs	exp	obs	exp	obs	exp	Total	obs	exp	obs	exp	obs	exp	obs	exp	obs	exp	Total
Mild to mod. intel.diff.	24	27.7	35	42.6	45	43.2	27	26.0	144	135.6	275	22	20.0	35	30.8	28	31.2	18	18.8	96	98.1	199
Emot. and beh. diff.	18	18.5	30	28.5	21	28.9	15	17.4	100	90.7	184	30	28.0	39	43.1	48	43.6	26	26.3	135	137.0	278
Physical disorders	24	27.5	43	42.3	36	42.8	28	25.8	142	134.6	273	14	16.3	23	25.1	33	25.4	11	15.3	81	79.9	162
Health disorders	17	22.8	26	35.2	36	35.6	24	21.5	124	111.9	227	24	21.2	41	32.7	29	33.1	20	20.0	97	104.0	211
Hard-of-hearing	13	11.2	18	17.2	15	17.4	11	10.5	54	54.7	111	22	25.2	40	38.7	41	39.2	28	23.6	119	123.2	250
Low Vision	22	18.3	27	28.2	25	28.2	21	17.2	86	89.2	181	19	25.9	42	39.8	39	39.8	23	24.3	133	126.2	256
Speech and lan.diff.	7	10.4	15	16.0	16	16.2	11	9.7	54	50.8	103	26	28.1	43	43.2	39	43.8	31	26.4	140	137.5	279
Sev. to prof. int dif.	7	4.6	13	7.1	6	7.2	2	4.4	18	22.7	46	34	31.8	47	49.0	49	49.6	31	29.9	155	155.8	316
Deafness	2	1.7	2	2.6	2	2.7	3	1.6	8	8.4	17	12	14.7	24	22.6	23	22.9	16	13.8	71	72.0	146
Blindness	0	1.0	0	1.6	3	1.6	2	0.9	5	4.9	10	8	12.2	23	18.8	17	19.0	14	11.5	59	59.5	121
Total	134		209		205		144		735		1427	211		357		346		218		1086		2218

Table 6.15: **(contn) Summary of Chi-sq (χ^2) statistics on preference of educational provisions for children with SEN on the basis of length of teachers' teaching experience**

TEN (10) SEN CATEGORIES	Segregation											Chi-sq (χ^2) Value	Sig.
	< 1 year teaching experience		1 – 3 years teaching experience		4 – 6 years teaching experience		7 – 9 years teaching experience		10 or >years teaching experience		Total		
	obs	exp	obs	exp	obs	exp	obs	exp	obs	exp			
Mild to moderate Intellectual difficulties	4	2.3	7	3.6	5	3.6	2	2.2	5	11.3	23	12.295	NS
Emotional and behavioural difficulties	2	3.5	8	5.4	9	5.5	6	3.3	10	17.3	35	13.886	NS
Physical disorders	12	6.2	11	9.6	9	9.7	8	5.9	22	30.6	62	14.887	NS
Health disorders	9	5.9	10	9.1	13	9.3	3	5.6	24	29.1	59	14.207	NS
Hard-of-hearing	15	13.7	19	21.1	22	21.3	8	12.9	72	67.0	136	4.728	NS
Low Vision	9	5.9	8	9.0	13	9.0	3	5.5	25	28.6	58	9.659	NS
Speech and language difficulties	17	11.6	19	17.8	23	18.0	5	10.9	51	56.7	115	10.778	NS
Severe to profound Intellectual diff	9	13.6	17	20.9	23	21.2	14	12.8	72	66.5	135	11.780	NS
Deafness	36	33.6	51	51.7	53	52.4	28	31.6	166	164.6	334	3.137	NS
Blindness	42	36.8	54	56.7	58	57.4	31	34.6	180	179.6	365	9.439	NS
Total	155		204		228		108		627	1322			

df=8

For significance at $p<0.01$ critical value should be ≥ 20.090; and for significance at $p<0.05$, critical value should be ≥ 15.507.

Key

NS represents lack of statistical relationship

BV. Measuring teachers' preference of educational provisions for children with SEN on the basis of level of experience

This part of the analysis is concerned with differences in preference of educational provision on the basis of level of experience with children with SEN, that is whether a teacher has taught or not taught a child or children with SEN. Using the sample ratio of 337:163 for those who had taught and those who had not, respectively, percentages were calculated. The results of Figure 6.6 revealed that both groups were supportive of mainstream as opposed to segregation. Additionally, in the three types of educational provisions, the evidence was that both were more inclined towards the mainstream with support. However, teachers who had taught children with SEN were more supportive of the mainstream without support than those who had not. In segregation, those who had not taught were more positive than those who had.

In the chi-square tests (see summary on Table 6.16) significant statistical difference was found in four (4) of the SEN categories. These were emotional and behavioural difficulties, hard-of-hearing, low vision and speech and language difficulties (χ^2 =20.539, $p<0.01$; χ^2 =14.404, $p<0.01$; χ^2 =14.400, $p<0.01$ and χ^2 =13.886, $p<0.01$, respectively). Physical observation of cross tabulation scores showed that in these SEN categories those who had taught children with SEN had a more positive attitude to inclusion.

In summary, teachers who had taught children with SEN were more supportive of the mainstream with no support than those who had not. But those who had not taught them were more favourable to segregation than those who had. This difference notwithstanding, they both were more in favour of mainstream than segregation.

Figure 6.6: Showing preference of educational provision for teachers on the basis of level of experience with children with SEN

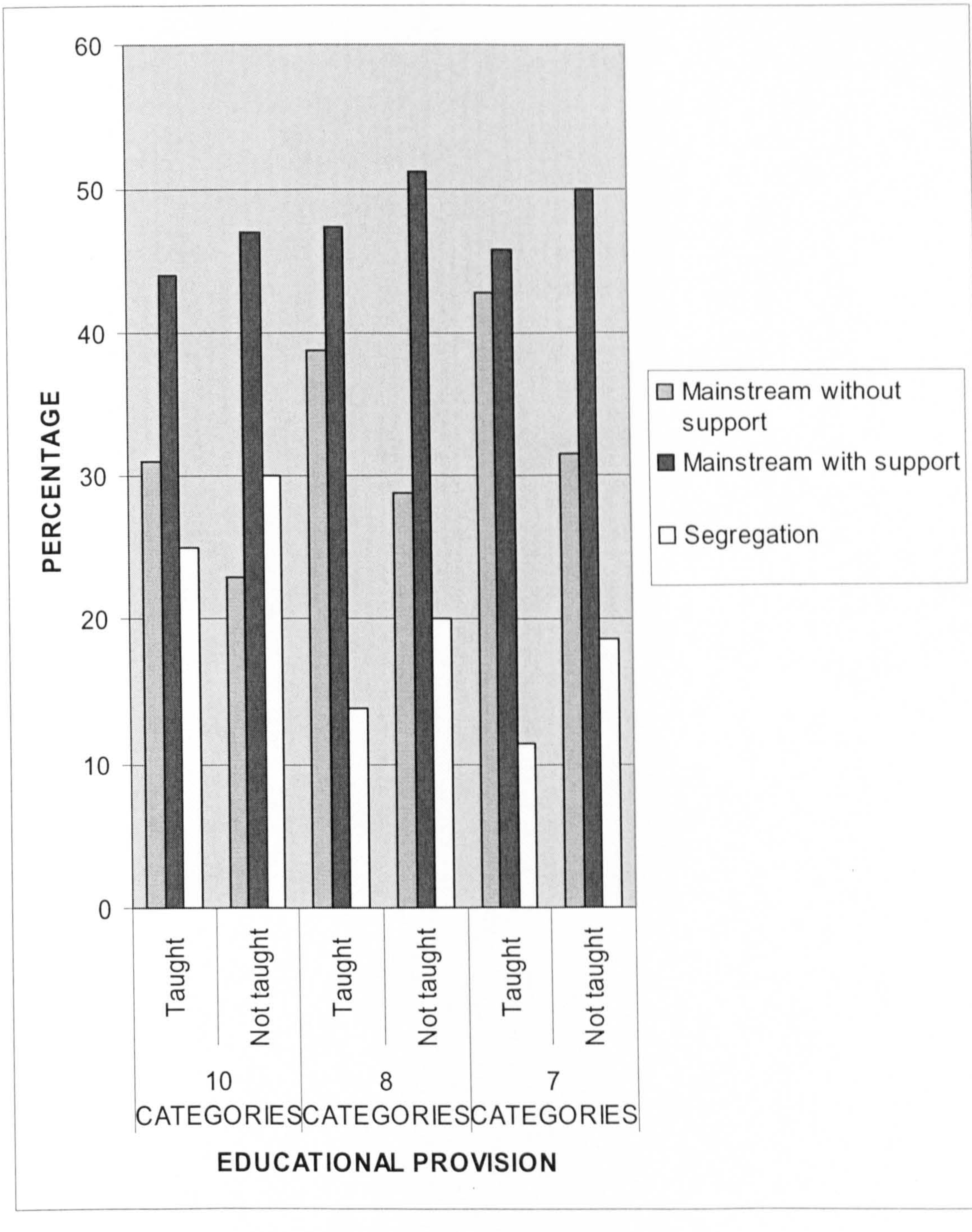


Table 6.16: Summary of Chi-sq (χ^2) statistics showing preference of educational provisions on the basis of teachers' level of experience with children with SEN

	Mainstream without support					Mainstream with support				
	Yes		No			Yes		No		
TEN (10) SEN CATEGORIES	obs	exp	obs	exp	Total (N)	obs	exp	obs	exp	Total (N)
Mild to moderate intellectual difficulties	197	185.2	78	89.8	275	125	134.7	75	65.3	200
Emotional and beh difficulties.	146	123.9	38	60.1	184	172	188.5	108	91.5	280
Physical Disorders	195	185.2	80	89.8	275	105	109.1	57	52.9	162
Health Disorders	156	153.5	72	74.5	228	146	142.7	66	69.3	212
Hard-of-hearing	86	74.7	25	36.3	111	174	169.0	77	82.0	251
Low vision	140	123.4	43	59.6	183	165	172.6	91	83.4	256
Speech and language difficulties.	81	69.4	22	33.6	103	191	188.5	89	91.5	280
Severe to prof intellectual difficulties.	33	31.0	13	15.0	46	213	213.5	104	103.5	317
Deafness	15	11.4	2	5.6	17	96	98.3	50	47.7	146
Blindness	8	6.7	2	3.3	10	80	81.6	41	41.2	121

Table 6.16 (contn): Summary of Chi-sq (χ^2) statistics showing preference of educational provisions on the basis of teachers' level of experience with children with SEN

TEN (10) SEN CATEGORIES	Segregation				Total (N)	Chi-sq (χ^2) Value	Significance
	Yes		No				
	obs	exp	obs	exp			
Mild to moderate Intellectual difficulties	14	16.2	10	7.8	24	5.323	NS
Emotional and behavioural. difficulties	18	23.6	17	11.4	35	20.539	S (at 0.01)
Physical Disorders	36	41.7	26	20.3	62	4.487	NS
Health Disorders	34	39.7	25	19.3	59	2.877	NS
Hard-of-hearing	76	92.2	61	44.8	137	14.404	S (at 0.01)
Low vision	30	39.1	28	18.9	58	14.400	S (at 0.01)
Speech and Language Difficulties	64	78.1	52	37.9	116	13.886	S (at 0.01)
Severe to profound Intellectual. difficulties	90	91.6	46	44.4	136	0.492	NS
Deafness	225	226.2	111	109.8	336	3.563	NS
Blindness	248	247.6	119	119.4	367	0.818	NS

df=2
For significance at $p<0.01$ critical value should be ≥ 9.210; and for significance at $p<0.05$, critical value should be ≥ 5.991.

Key:
S represents existence of significant statistical relationship
NS represents lack of statistical relationship

BVI. Measuring teachers' preference of educational provisions for children with SEN on the basis of knowledge of SEN

In this section, comparison was made between teachers who had knowledge and those who did not have knowledge in teaching children with SEN. Teachers who knew how to teach those with SEN numbered 335 and those who did not know were 165. Between mainstream and segregation, the two groups supported mainstream. But in the mainstream without support, teachers who knew how to teach children with SEN were more in favour than those who did not know how to teach them (see summary on Figure 6.7). In the mainstream with support, no difference was found between the two groups. In segregation, it was found that those who did not know had a higher score than those who knew indicating that teachers who did not know how to teach children with SEN would prefer these children to be segregated.

In the chi-squared tests (see summary on Table 6.17) significant statistical difference was found in three of the SEN categories. These were mild to moderate intellectual difficulties (χ^2 =14.723, p=0.01); emotional and behavioural difficulties (χ^2 =11.385, p=0.01); and hard-of-hearing (χ^2 = 9.722, p=0.01). Physical observation of cross tabulation scores showed that teachers who knew how to teach those with SEN had better preference than those who did not. This meant that in the other SEN categories the differences between teachers who knew and those who did not know how to teach children with SEN were not different from one another.

Thus, teachers who knew how to teach children with SEN were more supportive of the mainstream than those who did not know how to teach them. But those who did not know gave more support to segregation than those who knew. In the chi-square tests, there were significant statistical differences in the mild to moderate intellectual difficulties, emotional and behavioural difficulties and hard-of-hearing.

Figure 6.7: Teachers' preference of educational provision on the basis of knowledge in teaching children with SEN

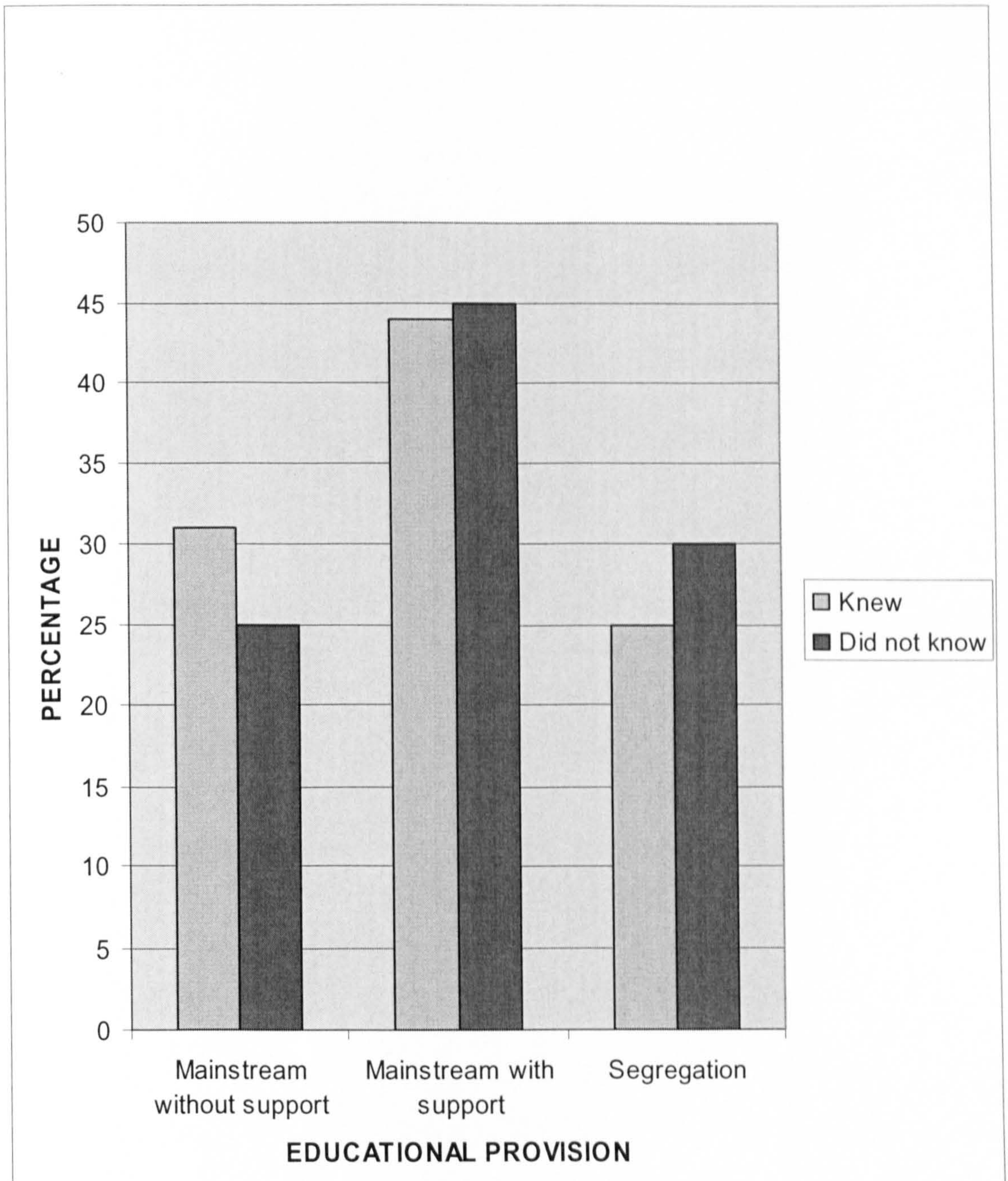


Table 6.17: Summary of Chi-sq (χ^2) showing statistics of preference of educational provisions for children on the basis of teachers' knowledge in teaching children with SEN

	Mainstream without support					Mainstream with support				
	Knowledge about teaching children with SEN		No knowledge about teaching children with SEN			Knowledge about teaching children with SEN		No knowledge about teaching children SEN		
TEN (10) SEN CATEGORIES	obs	exp	obs	exp	Tot	obs	exp	obs	exp	Tot
Mild to moderate Intellectual difficulties	204	184.1	71	90.9	275	117	133.9	83	66.1	200
Emotional and behavioural difficulties	140	123.2	44	60.8	184	174	187.4	106	92.6	280
Physical disorders	190	184.1	85	90.9	275	105	108.4	57	53.6	162
Health disorders	149	152.6	79	75.4	228	150	141.9	62	70.1	212
Hard-of-hearing	83	74.3	28	36.7	111	173	168.0	78	83.0	251
Low Vision	133	122.2	50	60.8	183	165	171.0	91	85.0	256
Speech and language difficulties	77	68.9	26	34.1	103	185	187.4	95	92.6	280
Severe to profound Intellectual difficulties	32	30.8	14	15.2	46	218	212.2	99	104.8	317
Deafness	13	11.4	4	5.6	17	103	97.7	43	48.3	146
Blindness	5	6.7	5	3.3	10	89	81.2	32	39.8	121
Total	1026		406		1432	1479		746		2225

Table 6.17 (contn) Summary of Chi-sq (χ^2) showing statistics of preference of educational provisions for children on the basis of teachers' knowledge in teaching children with SEN

TEN (10) SEN CATEGORIES	Segregation				Total	Chi-sq (χ^2) Value	Sig.
	Knowledge about teaching children with SEN		No knowledge about teaching children with SEN				
	obs	exp	obs	exp			
Mild to moderate Intellectual difficulties	13	16.1	11	7.9	24	14.723	S (at 0.01)
Emotional and behavioural difficulties	20	23.4	15	11.6	35	11.385	S (at 0.01)
Physical disorders	39	41.5	23	20.5	62	1.362	NS
Health disorders	35	39.5	24	19.5	59	3.201	NS
Hard-of-hearing	78	91.7	59	45.3	137	9.722	S (at 0.01)
Low Vision	34	38.7	24	19.3	58	5.236	NS
Speech and language difficulties	72	77.6	44	38.4	116	4.183	NS
Severe to profound Intellectual difficulties	84	91.0	52	45.0	136	2.269	NS
Deafness	218	224.9	118	111.1	336	2.200	NS
Blindness	240	246.1	127	120.9	367	4.088	NS
Total	833		497		1330		

df=2

For significance at $p<0.01$ critical value should be ≥ 9.210; and for significance at $p<0.05$, critical value should be ≥ 5.991.

Key

S represents existence of significant statistical relationship

NS represents lack of statistical relationship

CI. Measuring teachers' preference of educational provisions for children with SEN by region

This section looks at differences in teachers' preference of educational provisions for children with SEN by region. Using regional sample ratio of 124:239:137 for the Northern, Ashanti and Central Regions, respectively, percentages were used to find out if teachers in the three regions differed in their attitudes to preference of the three educational provisions for children with SEN. The results showed (see summary on Figure 6.8) that between mainstream (without and with support; that is when the two were put together) and segregation, teachers in the three regions did not differ much in their attitudes. There was indication that they were more supportive of mainstream than segregation. Even though the Central Region (75%) appeared to be the most supportive of mainstream looking at their score, they did not differ much from the scores of the others as the Ashanti Region had 74% and Northern Region 71%.

In the three educational provisions, teachers in the three regions were more favourable to the mainstream with support. In each of the three regions, more than 40% of teachers favoured the mainstream with support provision. But with a score of 29%, the Northern Region appeared to have the most favourable attitude to the segregation provision.

Chi-square tests were conducted to establish any differences in the SEN categories (see summary on Table 6.18). Significant statistical difference was found in physical disorders (χ^2 =13.565, $p<0.01$), health disorders (χ^2 =15.133, $p<0.01$) and emotional and behavioural difficulties (χ^2 =12.998, $p< 0.05$). Physical examination of the cross tabulation scores showed the Northern Region had better preference towards segregating the three SEN categories. In the other SEN categories, no significant differences were found between teachers in the three regions.

Thus, the three regions did not differ much in their choice of educational provision for children with SEN. They were each supportive of mainstream and less in favour of segregating. But the Central Region appeared to be the most in favour of mainstream followed by Ashanti Region. The Northern Region was the least favourable to mainstream without support, but the most supportive of segregation. In the chi-squared tests, statistical significant difference was observed in physical disorders and health disorders at 0.01, while emotional and behavioural difficulties became significant at 0.05 level.

Figure 6.8: Teachers' preference of educational provision for children with SEN by region

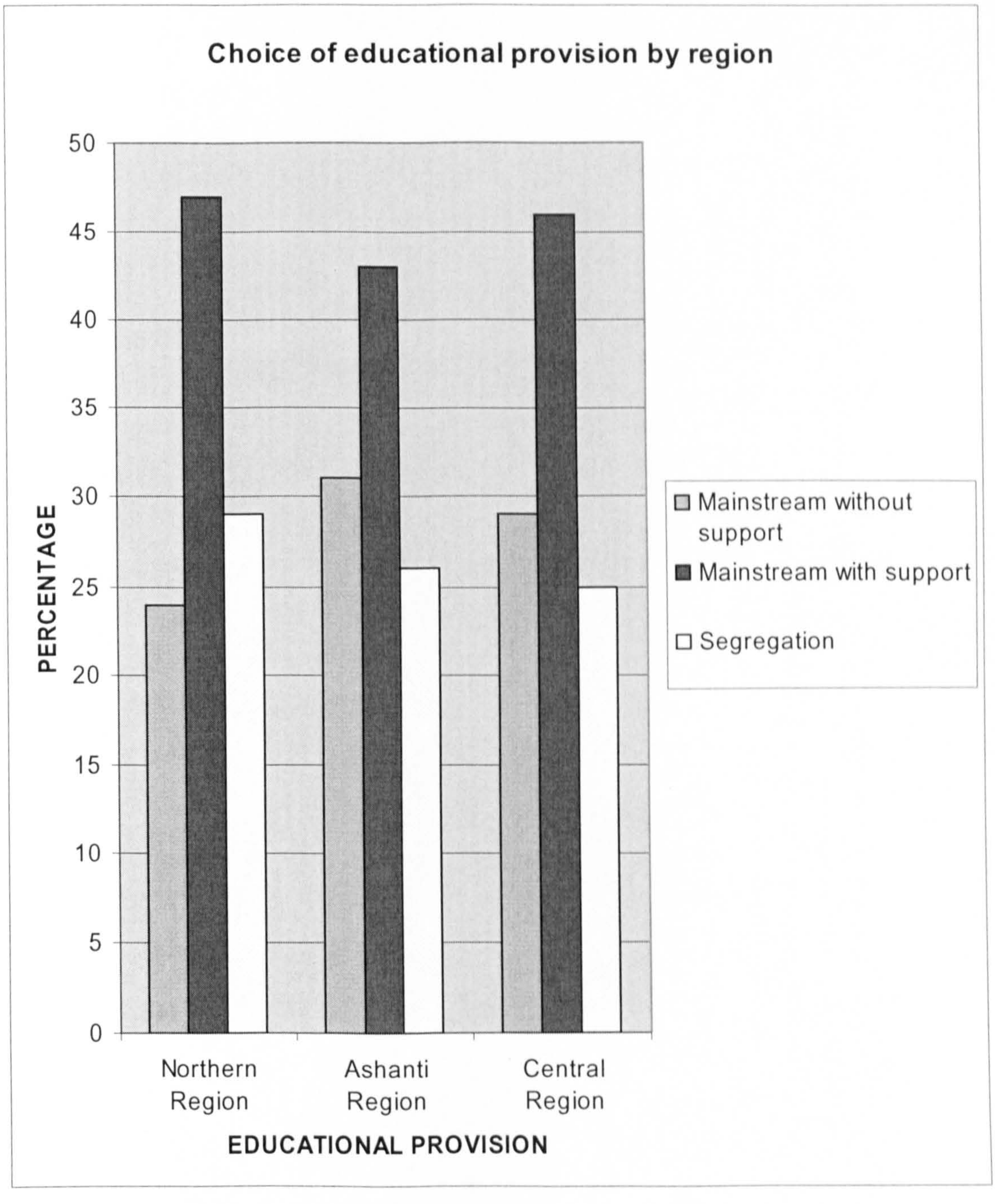


Table 6.18: Summary of Chi-sq (χ^2) statistics showing teachers' preference of educational provision for children with SEN by region

TEN (10) SEN CATEGORIES	Mainstream without support							Mainstream with support						
	Northern Region		Ashanti Region		Central Region		Sub-total	Northern Region		Ashanti Region		Central Region		Sub-total
	obs	exp	obs	exp	obs	exp		obs	exp	obs	exp	obs	exp	
Mild to moderate. Intellectual difficulties	65	68.3	133	131.7	77	74.9	275	49	49.7	95	95.8	56	54.5	200
Emotional and behavioural. difficulties	36	45.7	106	88.1	42	50.1	184	75	69.6	121	134.1	84	76.3	280
Physical Disorders	55	68.3	130	131.7	90	74.9	275	50	40.3	76	77.6	36	44.2	162
Health Disorders	39	56.7	116	109.2	73	62.1	228	64	52.7	98	101.5	50	57.8	212
Hard-of-hearing	23	27.6	59	53.2	29	30.3	111	64	62.4	116	120.2	71	68.4	251
Low vision	39	45.7	96	88.0	48	49.3	183	68	63.9	116	123.1	72	69.0	256
Speech and Language Difficulties	24	25.6	55	49.3	24	28.1	103	67	69.6	139	134.1	74	76.3	280
Severe to profound Intellectual. difficulties	9	11.4	26	22.0	11	12.5	46	77	78.8	151	151.8	89	86.4	317
Deafness	7	4.2	6	8.1	4	4.6	17	39	36.3	62	69.9	45	39.8	146
Blindness	6	2.5	3	4.8	1	2.7	10	30	30.1	56	58.1	35	32.8	121
Total	303		730		399		1432	583		1030		612		2225

Table 6.18: (contn) Summary of Chi-sq (χ^2) statistics showing teachers' preference of educational provision for children with SEN by region

TEN (10) SEN CATEGORIES	Segregation						Sub-total	Chi-sq (χ^2) Value	Sig.
	Northern Region		Ashanti Region		Central Region				
	obs	exp	obs	exp	obs	exp			
Mild to moderate Intellectual difficulties	10	6.0	11	11.5	3	6.5	24	4.958	
Emotional and behavioural difficulties	13	8.7	12	16.8	10	9.5	35	12.998	S (at 0.05)
Physical disorders	19	15.4	33	29.7	10	16.9	62	13.565	S (at 0.01)
Health disorders	21	14.7	25	28.3	13	16.1	59	15.133	S (at 0.01)
Hard-of-hearing	37	34.0	64	65.6	36	37.3	137	2.087	NS
Low vision	17	14.5	27	27.9	14	15.6	58	3.182	NS
Speech and language difficulties.	33	28.8	45	55.6	38	31.6	116	5.586	NS
Severe to profound intellectual difficulties	38	33.8	68	65.1	36	37.1	136	2.248	NS
Deafness	78	83.5	171	160.9	87	91.6	336	5.479	NS
Blindness	88	91.4	180	176.1	99	99.9	367	7.137	NS
Total	354		630		346		1330		

df=4

For significance at $p<0.01$ critical value should be ≥ 13.28; and for significance at $p<0.05$, critical value should be ≥ 9.488.

Key:
S represents existence of significant statistical relationship
NS represents lack of statistical relationship

CII. Measuring teachers' preference of educational provisions for children with SEN by level of urbanisation

In this section, analysis was done to find out if there were any differences in attitude between teachers in urban, semi-urban and rural areas in the three regions. In calculating proportion, the following samples were used:

a. Northern Region: Urban, 46; Semi-urban, 40; Rural, 38.
b. Ashanti Region: Urban, 100; Semi-urban, 85; Rural, 54.
c. Central Region: Urban, 52; Semi-urban, 48; Rural, 36.

There was an indication that all the teachers in the nine settings of the three regions preferred mainstream to segregating (see summary on Figure 6.9). An examination of the results showed that in the Northern Region, teachers in rural settings (80%) were the most supportive of mainstream and the least supportive of segregation (20%). They were followed by teachers in the semi-urban with 71% supporting mainstream and 29% segregation. Those in the urban settings (65%) were the least favourable to mainstreaming but the most supportive of segregation (35%). There was a trend in the Northern Region results. As one moved from the urban area to the rural settings, there was an increase in the percentage of teachers favouring teaching children with SEN in the mainstream. Conversely, as one moved from rural to urban settings, teachers were less positive to teaching children with SEN in the mainstream.

In the Ashanti Region, teachers in the semi-urban area (76%) were the most supportive of mainstreaming children with SEN and least supportive (24%) of segregating. Those in urban (74%) settings followed in supporting mainstream and in segregating children with SEN (26%). Teachers in rural settings (70%) were least supportive of mainstream but most supportive of segregating (30%). In the Central Region, teachers in urban settings (76%) were the most supportive of mainstream and least in favour of segregating (24%). But considering specific educational provision, it was found that teachers in rural settings (34%) were the most positive of the mainstream without support followed by urban (31%). Those in semi-urban (23%) were the least supportive of the mainstream without support. In mainstream with support, teachers in the semi-urban (49%) were the most supportive followed by urban (45%). Those in rural (40%) were least. In segregation the most supportive were semi-urban (28%) followed by rural (26%). The least supportive was urban (24%).

In generalising the results of the Ashanti and Central Regions, some caution is necessary for about 35 of the sampled population of the untrained in Ashanti and 5%

of Central did not give information about their views. Perhaps, if their views had been obtained, their results might have been different. But a closer examination of the three results suggests that teachers in urban settings were less positive to the mainstream without support. Teachers in rural settings were the most positive to the mainstream without support followed by those in semi-urban settings.

In the chi-square tests (see summary on Table 6.19a, b, and c) for the Ashanti Region statistically significant difference was found in three of the SEN categories at 0.01 levels. These were emotional and behavioural difficulties ($\chi^2 = 21.359$, $p<0.01$); physical disorders ($\chi^2 = 15.773$, $p<0.01$); and hard-of-hearing ($\chi^2 = 14.121$, $p<0.01$). A significant statistical difference was observed for blindness at 0.05 ($\chi^2 = 9.612$, $p<0.05$). In the Northern Region, no significant statistical difference was found between teachers in urban, semi-urban and rural settings at 0.01 levels. However, at 0.05 level, significant statistical difference was observed in low vision ($\chi^2 = 9.759$, $p<0.05$), speech and language difficulties ($\chi^2 = 9.898$, $p<0.05$) and severe to profound intellectual difficulties ($\chi^2 = 9.290$, $p<0.05$). In the Central Region, no difference was found at the 0.01 level.

Figure 6.9: Teachers' preference of educational provision for children with SEN by level of urbanisation

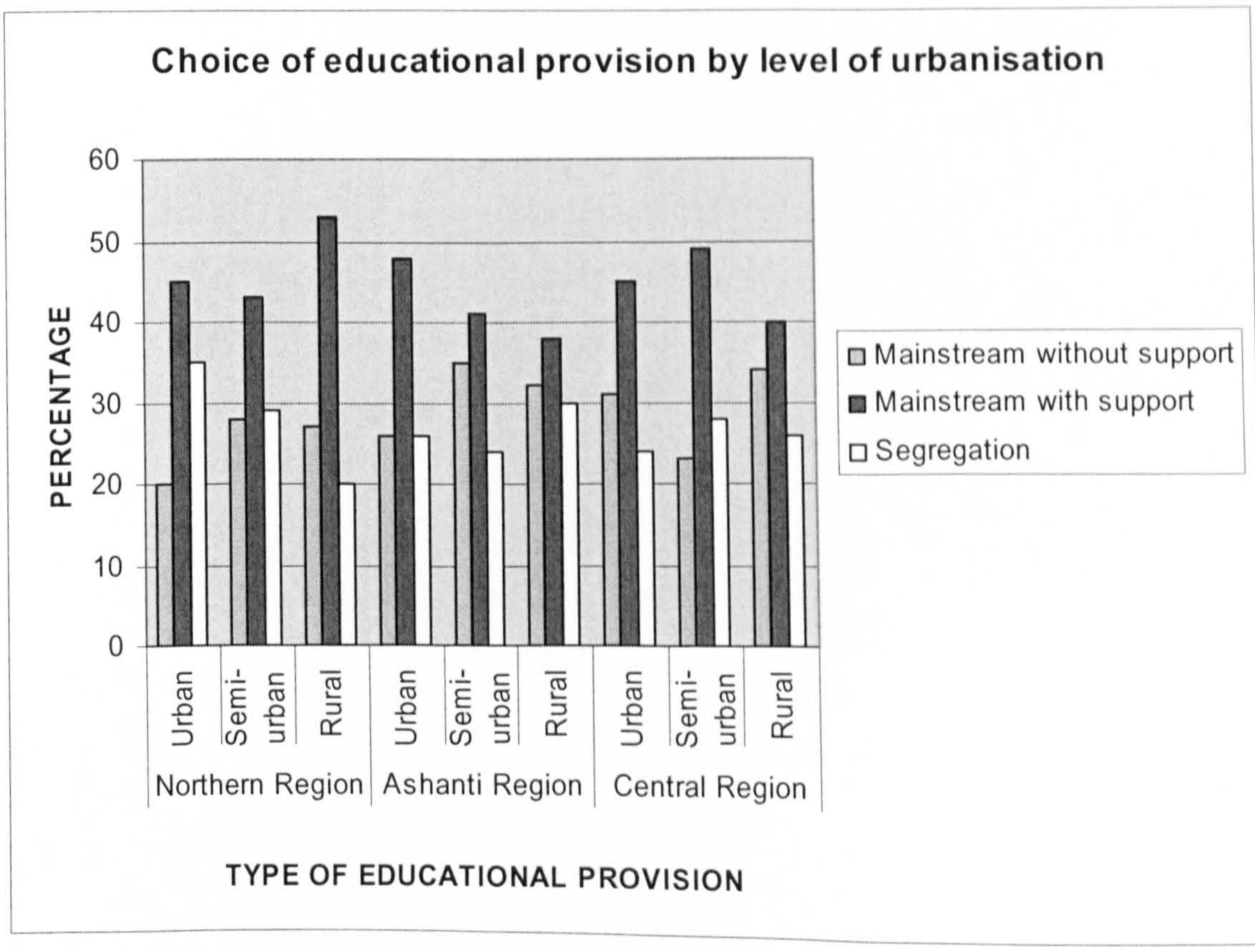


Table 6.19a: Summary of Chi-sq (χ^2) statistics on preference of educational provisions for children with SEN by teachers in urban, semi-urban and rural areas in the Northern Region

TEN (10) SEN CATEGORIES	NORTHERN REGION													
	Mainstream without support							Mainstream with support						
	Urban		Semi-urban		Rural		Sub-total	Urban		Semi-urban		Rural		Sub-total
	obs	exp	obs	exp	obs	exp		obs	exp	obs	exp	obs	exp	
Mild to moderate. Intellectual difficulties	23	24.1	21	21.0	21	19.9	65	18	18.2	14	15.8	17	15.0	49
Emotional and behavioural. difficulties	11	13.4	11	11.6	14	11.0	36	27	27.8	24	24.2	24	23.0	75
Physical Disorders	15	20.4	22	17.7	18	16.9	55	22	18.5	12	16.1	16	15.3	50
Health Disorders	14	14.5	15	12.6	10	12.0	39	22	23.7	20	20.6	22	19.6	64
Hard-of-hearing	6	8.5	10	7.4	7	7.0	23	22	23.7	17	20.6	25	19.6	64
Low vision	7	14.5	18	12.6	14	12.0	39	32	25.2	17	21.9	19	20.8	68
Speech and Language Difficulties	5	8.9	11	7.7	8	7.4	24	23	24.9	19	21.6	25	20.5	67
Severe to profound Intellectual difficulties	3	3.3	1	2.9	5	2.8	9	23	28.6	28	24.8	26	23.6	77
Deafness	3	2.6	2	2.3	2	2.1	7	10	14.5	13	12.6	16	12.0	39
Blindness	4	2.2	0	1.9	2	1.8	6	8	11.1	9	9.7	13	9.2	30
Total	91		111		101		303	207		173		203		583

Table 6.19a: (contn) Summary of Chi-sq (χ^2) statistics on preference of educational provisions for children with SEN by teachers in urban, semi-urban and rural areas in the Northern Region

TEN (10) SEN CATEGORIES	Segregation						Sub-total	Chi-sq (χ^2) Value	Sig.
	Urban		Semi-urban		Rural				
	obs	exp	obs	exp	obs	exp			
Mild to moderate Intellectual difficulties	5	3.7	5	3.2	0	3.1	10	5.069	NS
Emotional and behavioural difficulties	8	4.8	5	4.2	0	4.0	13	7.549	NS
Physical disorders	9	7.0	6	6.1	4	5.8	19	5.374	NS
Health disorders	10	7.8	5	6.8	6	6.4	21	2.358	NS
Hard-of-hearing	18	13.7	13	11.9	6	11.3	37	7.840	NS
Low Vision	7	6.3	5	5.5	5	5.2	17	9.759	S (at 0.05)
Speech and language difficulties	18	12.2	10	10.6	5	10.1	33	9.898	S (at 0.05)
Severe to profound Intellectual difficulties	20	14.1	11	12.3	7	11.6	38	9.290	S (at 0.05)
Deafness	33	28.9	25	25.2	20	23.9	78	4.076	NS
Blindness	34	32.6	31	28.4	23	27.0	88	6.748	NS
Total	162		116		76		354		

df = 4
For significance at $p<0.01$, critical value should be ≥ 13.28; and for significance at $p<0.05$, critical value should be ≥ 9.488.

Key:

S represents existence of significant statistical relationship
NS represents lack of statistical relationship

Table 6.19b: Summary of Chi-sq (χ^2) statistics on preference of educational provisions for children with SEN by teachers in urban, semi-urban and rural areas in the Ashanti Region

TEN (10) SEN CATEGORIES	ASHANTI REGION													
	Mainstream without support							Mainstream with support						
	Urban		Semi-urban		Rural		Sub-total	Urban		Semi-urban		Rural		Sub-total
	obs	exp	obs	exp	obs	exp		obs	exp	obs	exp	obs	exp	
Mild to moderate. Intellectual difficulties	54	55.6	46	47.3	33	30.1	133	39	39.7	36	33.8	20	21.5	95
Emotional and behavioural. difficulties	30	44.4	53	37.7	23	23.9	106	65	50.6	27	43.0	29	27.3	121
Physical Disorders	44	54.4	56	46.2	30	29.4	130	44	31.8	20	27.0	12	17.2	76
Health Disorders	49	48.5	47	41.3	20	26.2	116	41	41.0	30	34.9	27	22.1	98
Hard-of-hearing	15	24.7	31	21.0	13	13.3	59	57	48.5	37	41.3	22	26.2	116
Low vision	36	40.2	34	34.1	26	21.7	96	52	48.5	43	41.3	21	26.2	116
Speech and Language Difficulties	15	23.0	23	19.6	17	12.4	55	62	58.2	51	49.4	26	31.4	139
Severe to profound Intellectual. difficulties	12	10.9	8	9.2	6	5.9	26	54	63.2	62	53.7	35	34.1	151
Deafness	3	2.5	1	2.1	2	1.4	6	32	25.9	21	22.1	9	14.0	62
Blindness	2	1.3	0	1.1	1	0.7	3	31	23.4	19	19.9	6	12.7	56
Total	260		299		171		730	477		346		207		1030

Table 6.19b: (contn) Summary of Chi-sq (χ^2) statistics on preference of educational provisions for children with SEN by teachers in urban, semi-urban and rural areas in the Ashanti Region

TEN (10) SEN CATEGORIES	Segregation							Chi-sq (χ^2) Value	Sig.
	Urban		Semi-urban		Rural		Sub-total		
	obs	exp	obs	exp	obs	exp			
Mild to moderate Intellectual difficulties	7	4.6	3	3.9	1	2.5	11	2.982	NS
Emotional and behavioural difficulties	5	5.0	5	4.3	2	2.7	12	21.359	S (at 0.01)
Physical disorders	12	13.8	9	11.7	12	7.5	33	15.773	S (at 0.01)
Health disorders	10	10.5	8	8.9	7	5.6	25	4.450	NS
Hard-of-hearing	28	26.8	17	22.8	19	14.5	64	14.121	S (at 0.01)
Low Vision	12	11.3	8	9.6	7	6.1	27	3.133	NS
Speech and language difficulties	23	18.8	11	16.0	11	10.2	45	8.868	NS
Severe to profound Intellectual difficulties	34	25.9	15	22.1	13	14.0	62	7.755	NS
Deafness	65	71.5	63	60.8	43	38.6	171	5.431	NS
Blindness	67	75.3	66	64.0	47	40.7	180	9.612	S (at 0.05)
Total	263		205		162		630		

df-4
For significance at $p<0.01$, critical value should be ≥ 13.28; and for significance at $p<0.05$, critical value should be ≥ 9.488.
Key:

S represents existence of significant statistical relationship
NS represents lack of statistical relationship.

Table 6.19c: Summary of Chi-sq (χ^2) statistics on preference of educational provisions for children with SEN by teachers in urban, semi-urban and rural areas in the Central Region

TEN (10) SEN CATEGORIES	CENTRAL REGION													
	Mainstream without support							Mainstream with support						
	Urban		Semi-urban		Rural		Total	Urban		Semi-urban		Rural		Total
	obs	exp	obs	exp	obs	exp		obs	exp	obs	exp	obs	exp	
Mild to moderate. Intellectual difficulties	33	29.4	22	27.2	22	20.4	77	19	21.4	23	19.8	14	14.8	56
Emotional and behavioural. diff	19	16.1	11	14.8	12	11.1	42	30	32.1	31	29.6	23	22.2	84
Physical Disorders	28	34.4	32	31.8	30	23.8	90	16	13.8	15	12.7	5	9.5	36
Health Disorders	29	27.9	22	25.8	22	19.3	73	20	19.1	20	17.6	10	13.2	50
Hard-of-hearing	14	11.1	7	10.2	8	7.7	29	26	27.1	23	25.1	22	18.8	71
Low vision	22	18.6	10	16.5	16	12.9	48	27	27.9	26	24.7	19	19.3	72
Speech and Lang. difficulties	11	9.2	5	8.5	8	6.4	24	30	28.3	28	26.1	16	19.6	74
Severe to profound Intellectual difficulties	5	4.2	2	3.9	4	2.9	11	33	34.0	37	31.4	19	23.6	89
Deafness	2	1.5	0	1.4	2	1.1	4	18	17.2	18	15.9	9	11.9	45
Blindness	1	0.4	0	0.4	0	0.3	1	13	13.2	15	12.4	7	9.3	35
Total	164		111		124			232		236		144		

Table 6.19c: (contn) Summary of Chi-sq (χ^2) statistics on preference of educational provisions for children with SEN by teachers in urban, semi-urban and rural areas in the Central Region

TEN (10) CATEGORIES	Segregation						Total	Chi-sq (χ^2) Value	Sig.
	Urban		Semi-urban		Rural				
	obs	exp	obs	exp	obs	exp			
Mild to mod. intel diff.	0	1.1	3	1.1	0	0.8	3	7.892	NS
Emotional and beh diff.	3	3.8	6	3.5	1	2.6	10	4.754	NS
Physical disorders	8	3.8	1	3.5	1	2.6	10	13.127	S (at 0.05)
Health disorders	3	5.0	6	4.6	4	3.4	13	3.415	NS
Hard-of-hearing	12	13.8	18	12.7	6	9.5	36	6.305	NS
Low vision	3	5.4	10	4.8	1	3.8	14	12.739	S (at 0.05)
Speech and lang diff.	11	14.5	15	13.4	12	10.1	38	4.527	NS
Sev to prof. intel. dif.	14	13.8	9	12.7	13	9.5	36	5.726	NS
Deafness	32	33.3	30	30.7	25	23.0	87	3.657	NS
Blindness	37	37.4	33	35.2	29	26.4	99	3.157	NS
Total	123		131		92				

df-4
For significance at $p<0.01$, critical value should be ≥ 13.28; and for significance at $p<0.05$, critical value should be ≥ 9.488.
Key:

S represents existence of significant statistical relationship
NS represents lack of statistical relationship

CIII. Analysis of teachers' preference of support services in including children with SEN in mainstream

There was an indication that where support service was available to teachers, they were willing to teach different ranges of children with SEN in the mainstream. But as the Figure 6.10 and the summary of Table 6.20 vividly illustrate, the choice of support was dependent on the SEN category. Where there was consultation service, more than 50% of the teachers indicated they would accept to teach children with mild to moderate intellectual difficulties, health disorders and emotional and behavioural difficulties. Again, more than a third would accept to teach those with severe to profound intellectual difficulties and low vision in the mainstream.

a. Mild to moderate intellectual difficulties (70.5%)
b. Health disorder (55.7%)
c. Emotional and behavioural difficulties (52.5)
d. Severe to profound intellectual difficulties (41.6%), and
e. Low vision (39.8%),

This meant that given the ten SEN categories, teachers would consult specialist to teach the above-listed SEN categories in the mainstream. It was found that where there were special education teachers to collaborate with mainstream teachers in teaching children with SEN in the mainstream, more than 50% of the teachers would teach those with deafness and blindness and a third of the teachers would accept to teach the hard-of hearing, severe to profound intellectual difficulties, emotional and behavioural difficulties, and speech and language difficulties.

- Deafness (53.4%)
- Blindness (50.4%)
- Hard-of hearing (39%)
- Severe to profound intellectual difficulties (37.5%),
- Emotional and behavioural difficulties (36.8%)
- Speech and language difficulties (36.1%)

For no apparent reason, resource room service did not appear to be teachers' choice. Apart from physical disorders and then low vision where more than a third of the teachers accepted the resource room service, in the other SEN categories, teachers were less positive. It was found, for instance, that only 10.7% would use the resource

room service to teach children with emotional and behavioural difficulties, physical disorders (35.1%), and low vision (34%).

In attempting to find the reasons, two hypotheses were considered. These were:

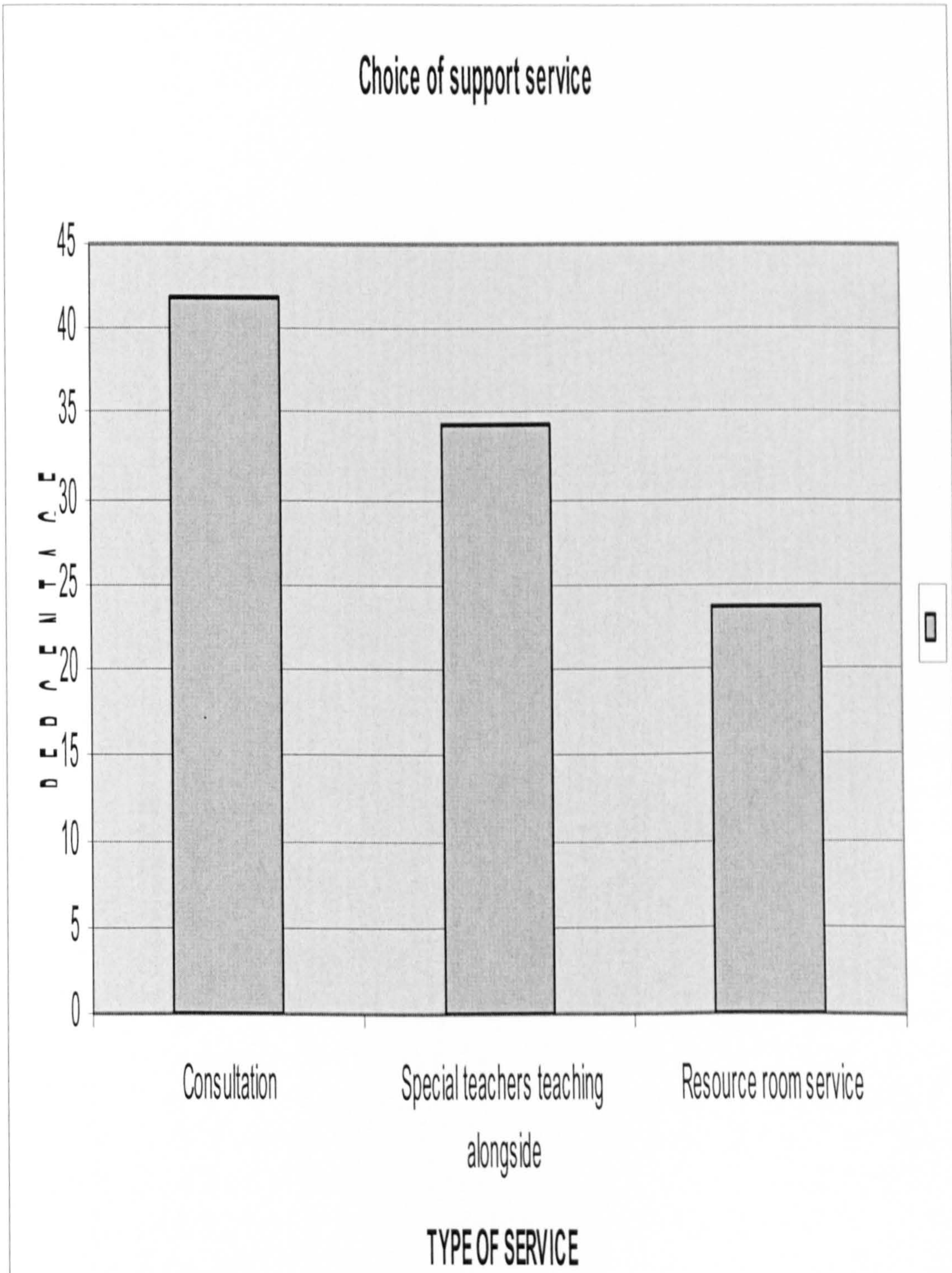
- Resource room service was not a common feature in the Education system in the country; hence teachers were not familiar with its roles.
- Teachers genuinely did not see it important in having it in the mainstream to teach children with SEN.

In summary, the teachers regarded consultation as the most suitable support service for children with SEN in the mainstream. This was followed by special education teachers teaching alongside. The least support service the teachers identified was resource room service.

Table 6.20: Teachers' preference of type(s) of support services in including children with SEN in the mainstream

CATEGORIES	Consultation		Special teachers		Resource room	
	N	%	N	%	N	%
Mild to mod. intellectual difficulties	141	70.5	36	18	23	11.5
Emotional and behavioural	147	52.5	103	36.8	30	10.7
Physical disorders	55	34	50	30.9	57	35.1
Health disorders	118	55.7	51	24.1	43	20.3
Hard-of-hearing	78	31.1	98	39	75	29.9
Low vision	102	39.8	67	26.2	87	34
Speech and language difficulties	94	33.6	101	36.1	85	30.3
Severe to prof. intellectual difficulties	132	41.6	119	37.5	66	20.8
Deafness	36	24.7	78	53.4%	32	21.9
Blindness	29	24	61	50.4	31	25.6
Total	932	41.9	764	34.3	529	23.8

Figure 6.10: Teachers' preference of support service in including children with SEN in the mainstream



D. ANALYSIS OF EMOTIONAL REACTIONS

This section is mainly concerned with finding out the type(s) of emotional reaction teachers experience in teaching children with SEN in mainstream education. There was difficulty analysing the data for most of the respondents did not correctly complete all the items. This happened in spite of clear instruction given, coupled with researcher having the opportunity to interact with respondents and explaining how items were to be completed. Respondents completed the bipolar emotional reactions poorly. This made it difficult to identify emerging patterns and to compare variables.

The instruction was quite explicit requiring respondents to tick one of each of the five (5) paired emotional reactions for each of the categories of SEN and disabilities. It was therefore expected that there would be five ticking to correspond with the five bipolar emotional reactions for each of the categories of SEN and disabilities. However, a greater majority of respondents ticked less than the expected. Some even ticked only one of the five. Apart from this, they were inconsistent in the way they did it as they selected randomly any pairs of emotional reactions. In their scale, Avramidis et al (2000) used a continuum to measure different levels of bipolar emotional reactions, (a type of scale they referred to as semantic differential originally developed by Osgood, Suci and Tannenbaum, 1957), I decided to use the dichotomous type where the response was either positive or negative. In doing this, I took into consideration what I had personally observed about the teachers in the country. I found that inclusion as a policy was new and not fully implemented in the country. Besides, there was no clearly set out policy to guide inclusion practice. More important, I realised how difficult it was to accurately measure a person's emotion since as a psychological construct it is subjective and not objective. Desmet (http://static.studiolab.io.tudelft.nl/gems/desmet/papermeasuring.pdf) opines that the quest for instruments to measure emotions has had a long history, but the problem is yet to be solved. Hence, asking the teachers to rate their emotional levels was not regarded as convenient as far as the circumstance of the research participants and analysis of the data were concerned.

For some reasons, only 20% of the 500 respondents filled in correctly. It is not clear why they did this but I have three (3) hypotheses. These were:

- Respondents' lack of understanding of the instruction due to the layout of the section. Perhaps, a better way would have been to present the bipolar emotional reactions vertically instead of horizontally with boxes against each to be ticked.
- Possibility of a semantic problem relating to how respondents understood the meaning of the five bipolar emotional reactions. It appears respondents got confused in differentiating the meaning of one pair from the other. There was an apparent lack of understanding of the words. On the surface the five bipolar emotional reactions seemed to mean one and the same thing. Hence, by providing one answer they thought it was enough. It seems a better way would have been to either offer an explanation or better still have three instead of four bipolar emotional reactions or simply use open ended type to solicit for the information.
- It appeared respondents simply did not have the time to complete the items and were as a result not conscientious and meticulous in completing them. Respondents were given three days to complete the questionnaire. Perhaps, if they had had sufficient time, all the items would have been completed.

I regarded these difficulties as methodological limitation to the study but most important a time to learn since they were quite illuminating. It is limitation to the study for if the views of the rest of the four hundred (400) respondents had been obtained, the findings might have been different. It is illuminating for I now have a better appreciation in and understanding of using questionnaire as data collecting instrument. When I have another opportunity to undertake a research in future I would take this lapse into consideration if I have to use questionnaire to gather research data.

The 20% may not be representative, yet they do present some data in which some analyses and conclusions could be drawn. But in using the 100, I did a further check on gender, qualification *(i.e. trained or untrained)*, length of teaching experience, teaching or not teaching a child with SEN to see their representativeness. In examining these, it was found that the samples were quite representative.

In the analysis, frequencies and percentages were used to identify respondents' emotional reactions. For purposes of analyses and to boost clarity, emotional reactions were classed as favourable (i.e. positive) or unfavourable (i.e. negative). The favourable ones were:

- Relaxed (Rel)
- Encouraged (Enc)
- Satisfied (Sat)
- Confident, (Conf) and
- Self-assured (Self-ass)

The unfavourable ones were:

- Anxious (Anx)
- Discouraged (Disco)
- Dissatisfied (Dissat)
- Diffident (Diff), and
- Worried (Worr)

1. <u>Measuring types of emotional reactions teachers experience in teaching children with different SEN in the mainstream</u>

The results of the ten (10) SEN categories were looked at. In doing this, the sums of each paired emotional reactions for the ten (10) SEN categories were compared. An examination of the results (see summary on Table 6.21) shows there was a huge divide between 6 of the SEN categories and 3 others. While there were several positives in the six, there was not a single positive in the three. Out of the thirty (30) paired emotional reactions in the 6 SEN categories, teachers were positive in 26 of them but negative in 4. This means that teachers were emotionally favourable to teaching a majority of children with SEN. The summary of Box 6.1 gives information on the six SEN categories with many positives and a few negatives. The hard-of-hearing seemed to go with the three unfavourable namely severe to profound intellectual difficulties, deafness and blindness. In the hard-of-hearing, there was one (1) neutral, 3 negatives and only one (1) positive out of the 5 paired emotional reactions.

Further, the results (see summary on Table 6.21) showed that respondents reported both favourable and unfavourable emotional reactions but the unfavourable outweighed the favourable ones (see Box 6.2).

Analysis was done for information on the nature and degree of SEN to examine if there were any differences in teachers emotional reactions. Three of the SEN

categories namely deafness, blindness and severe profound intellectual difficulties were excluded from the analysis. The results (see summary on Table 6.22 and Box 6.3) showed that only one of the bipolar emotional reactions was unfavourably reported (see summary on Table 6.22). This probably meant that teachers were more emotionally at ease when children with severe profound intellectual difficulties, deafness and blindness were not included in mainstream education.

To sum up, the results of overall teachers' emotional reactions have shown that emotional reactions tend to depend on the type, nature and degree of SEN being dealt with. In teaching children with mild to moderate intellectual difficulties, emotional and behavioural difficulties, physical disorders, health disorders, low vision and speech and language disorders, teachers reacted positively emotionally. However, when asked to teach the severe profound intellectual difficulties, hard-of-hearing, deaf and blind, their emotional reaction was negative.

Box 6.1: Showing categories teachers had favourable or unfavourable emotional reaction in teaching children with SEN in the mainstream (N=100)

Favourable or positives	Unfavourable or negatives
Mild to moderate intellectual difficulties,	Hard-of –hearing
Emotional and behavioural difficulties	Severe to profound intellectual difficulties
Physical disorders	Deafness
Health disorders	Blindness
Low vision	
Speech and language disorders	

Box 6.2: Summary of type of teachers' emotional reactions in teaching ten categories of children with SEN (N=100)

TEN (10) CATEGORIES	
Favourable or positives	**Unfavourable or negatives**
Encouraged	Anxious,
Confident	Dissatisfied
	Worried

Box 6.3: Summary of type of teachers' emotional reactions on the basis of the nature and degree of SEN (N=100)

SEVEN (7) CATEGORIES	
Favourable or positives	**Unfavourable or negatives**
Encouraged	Anxious
Satisfied	
Confident	
Self-assured.	

Table 6.21: Summary of scores of teachers' emotional reaction in teaching ten categories of children with SEN (N=100)

10 CATEGORIES	Relax	anxious	Encouraged	discouraged	Satisfied	dissatisfied	Confidence	diffident	Self-assured	worried
MMID	51	49	76	24	65	35	72	28	72	28
EBD	40	60	68	32	64	36	67	33	59	41
Physical disorders	55	45	79	21	69	31	78	22	75	25
Health disorders	50	50	63	37	59	41	63	37	53	47
Hard-of-hearing	50	50	56	44	43	57	46	54	46	54
Low vision	46	54	69	31	62	38	68	32	65	35
SLD	50	50	66	34	55	45	61	39	58	42
SPID	36	64	27	73	30	70	33	67	28	72
Deafness	39	61	19	81	16	84	20	80	14	86
Blindness	38	62	23	77	16	84	22	78	17	83
TOTAL	**455**	**545**	**546**	**454**	**479**	**521**	**530**	**470**	**487**	**513**

Table 6.22: Summary of scores of teachers' emotional reaction in teaching seven categories of children with SEN (N=100)

7 CATEGORIES	Relax	anxious	Encouraged	discouraged	Satisfied	dissatisfied	Confident	diffident	Self-assured	worried
Mild to moderate Intellectual difficulties	51	49	76	24	65	35	72	28	72	28
Emotional and behavioural difficulties	40	60	68	32	64	36	67	33	59	41
Physical disorders	55	45	79	21	69	31	78	22	75	25
Health disorders	50	50	63	37	59	41	63	37	53	47
Hard-of-hearing	50	50	56	44	43	57	46	54	46	54
Low vision	46	54	69	31	62	38	68	32	65	35
Speech and Language difficulties	50	50	66	34	55	45	61	39	58	42
TOTAL	**342**	**358**	**477**	**223**	**417**	**283**	**455**	**245**	**428**	**272**

2. Measuring gender differences in emotional reactions in teaching children with SEN

This part is the analysis of the differences in emotional reaction between male and female teachers in teaching children with SEN in the mainstream. The ratio of male to female teachers who correctly responded to all the items was 51:49. This ratio fairly reflected the 217:283 male-female samples obtained for analysis. The summary of the results of the ten (10) SEN categories (see summary on Table 6.23 and Box 6.4) shows there was no difference in emotional reaction between male and female teachers. They were both positive in two of the bipolar emotional reactions namely encouraged / discouraged and confident / diffidence, but in the others, they showed negativity.

Box 6.4: Summary of type of teachers' emotional reaction in teaching ten categories of children with SEN: percentage of male and female teachers

Male		**Female**	
Favourable / Positive	*Unfavourable / Negative*	*Favourable / Positive*	*Unfavourable / Negative*
Relaxed (46%)	Anxious (54%)	Relaxed (45%)	Anxious (55%)
Encouraged (54%)	Discouraged (46%)	**Encouraged (56%)**	Discouraged (44%)
Satisfied (47%)	Dissatisfied (53%)	Satisfied (49%)	Dissatisfied (51%)
Confident (53%)	Diffident (47%)	**Confident (53%)**	Diffident (47%)
Self-assured (49%)	Worried (51%)	Self-assured (49%)	Worried (51%)

NOTE: The highlighted shows positive emotional reaction to teaching children with SEN.

Table 6.23: Summary of scores of male and female teachers' emotional reaction in teaching ten categories of children with SEN (N=100)

TEN (10) CATEGORIES	Relaxed		anxious		Encouraged		discouraged		Satisfied		dissatisfied		Confident		diffident		Self-assured		worried	
	Mal	Fem	Mal	Fem	Mal	Fem	Mal	Fem	Mal	Fem	Mal	Fem	Mal	Fem	Mal	Fem	Mal	Fem	Mal	Fem
Mild to mod Int. diff.	21	30	30	19	37	39	14	10	31	34	20	15	36	36	15	13	34	38	17	11
Emotional And beh. df	19	21	32	28	36	32	15	17	32	32	19	17	35	32	16	17	33	26	18	23
Physical disoders	24	31	27	18	41	38	10	11	36	33	15	16	40	38	11	11	38	37	13	12
Health disorders	21	29	30	20	29	34	22	15	27	32	24	17	29	34	22	15	25	28	26	21
Hard-of-hearing	29	21	22	28	27	29	24	20	17	26	34	23	20	26	31	23	22	24	29	25
Low vision	20	26	31	23	34	35	17	14	31	31	20	18	33	35	18	14	31	34	20	15
Speech and Lang. diff	24	26	27	23	30	36	21	13	25	30	26	19	28	33	23	16	28	30	23	19
Sev to prof. Int. dif.	25	11	26	38	15	12	36	37	18	12	33	37	20	13	31	36	18	10	33	39
Deafness	26	13	25	36	10	9	41	40	10	6	41	43	12	8	39	41	9	5	42	44
Blindness	26	12	25	37	15	8	36	41	11	5	40	44	15	7	36	42	10	7	41	42
TOTAL	235	220	275	270	274	272	236	218	238	241	272	249	268	262	242	228	248	239	262	251
Derived Proportions	4.6	4.5	5.4	5.5	5.4	5.6	4.6	4.4	4.7	4.9	5.3	5.1	5.3	5.3	4.7	4.7	4.9	4.9	5.1	5.1
Percentages (%)	46	45	54	55	54	56	46	44	47	49	53	51	53	53	47	47	49	49	51	51

The results changed when the severe to profound intellectual difficulties, deafness and blindness SEN categories were excluded from analysis (see summary on Table 6.24 and Box 6.5). The female teachers were positive in all five (5) bipolar emotional reactions while the male teachers were positive in four of them. It was also found that in all the positives, the scores of the female teachers' were higher than their male counterparts.

In summary, the emotional reaction of both male and female teachers was similar in the analysis of the ten SEN categories. Both were encouraged and confident in teaching children with SEN in the mainstream. In the analysis of the seven SEN categories, the female teachers appeared to be more positive emotionally than their male counterparts as their scores on all the five bipolar emotional reaction were positive.

Box 6.5: Summary of type of teachers' emotional reaction in teaching seven categories of children with SEN: percentage of male and female teachers (N=100)

Male		**Female**	
Favourable / Positive	***Unfavourable / Negative***	***Favourable / Positive***	***Unfavourable / Negative***
Relaxed (44.3%)	Anxious (55.7%)	**Relaxed (54.3%)**	Anxious (45.7%)
Encouraged (65.7%)	Discouraged (34.3%)	**Encouraged (71.4%)**	Discouraged (28.6%)
Satisfied (55.7%)	Dissatisfied (44.3%)	**Satisfied (62.9%)**	Dissatisfied (37.1%)
Confident (61.4%)	Diffident (38.6%)	**Confident (68.6%)**	Diffident (31.4%)
Self-assured (58.6%)	Worried (41.4%)	**Self-assured (62.9%)**	Worried (37.1%)

NOTE: The highlighted shows more positive emotional reaction to teaching children with SEN.

Table 6.24: Summary of scores of male and female teachers' emotional reaction in teaching seven categories of children with SEN (N=100)

SEVEN (7) CATEGORIES	Relaxed		anxious		Encouraged		discouraged		Satisfied		dissatisfied		Confident		diffident		Self-assured		worried	
	Mal	Fem	Mal	Fem	Mal	Fem	Mal	Fem	Mal	Fem	Mal	Fem	Mal	Fem	Mal	Fem	Mal	Fem	Mal	Fem
Mild to mod int. difficul	21	30	30	19	37	39	14	10	31	34	20	15	36	36	15	13	34	38	17	11
Emotional & beh. df	19	21	32	28	36	32	15	17	32	32	19	17	35	32	16	17	33	26	18	23
Physical disoders	24	31	27	18	41	38	10	11	36	33	15	16	40	38	11	11	38	37	13	12
Health disorders	21	29	30	20	29	34	22	15	27	32	24	17	29	34	22	15	25	28	26	21
Hard-of-hearing	29	21	22	28	27	29	24	20	17	26	34	23	20	26	31	23	22	24	29	25
Low vision	20	26	31	23	34	35	17	14	31	31	20	18	33	35	18	14	31	34	20	15
Speech & lang. diff	24	26	27	23	30	36	21	13	25	30	26	19	28	33	23	16	28	30	23	19
TOTAL	158	184	199	159	234	243	123	100	199	218	158	125	221	234	136	109	211	217	146	126
Derived Proportion	3.1	3.8	3.9	3.2	4.6	5.0	2.4	2.0	3.9	4.4	3.1	2.6	4.3	4.8	2.7	2.2	4.1	4.4	2.9	2.6
Percentag (%)	44.3	54.3	55.7	45.7	65.7	71.4	34.3	28.6	55.7	62.9	44.3	37.1	61.4	68.6	38.6	31.4	58.6	62.9	41.4	37.1

3. Measuring differences in emotional reactions between trained and untrained teachers in teaching children with SEN

In this section, the analysis concentrated on differences between teachers who were trained and those who were not. There were 82 trained and 16 untrained teachers who correctly responded to all the items. Two (2) of the untrained teachers did not provide information on their qualification bringing the ratio of the trained to the untrained to approximately 5:1. It was on this ratio that derived proportions were calculated. This ratio was considered closer to the 383:95 (approximately 4:1) in the sample.

The results showed that the untrained were generally more positive emotionally than the trained (see summary on Table 6.25 and Box 6.6). While the untrained reported positively on four (4) of the bipolar emotional reactions, the trained did that for two of them (see Box 6.6). Even in the two where the trained were positive, the scores of the untrained were higher than the trained. Thus, the untrained were more encouraged, satisfied, confident, and more self-assured than the trained in teaching children with SEN. In the relaxed-anxious bipolar emotional reaction, both scored the same and were negative.

Box 6.6: Summary of type of teachers' emotional reaction in teaching ten categories of children with SEN: percentage of trained and untrained (N=100)

Trained		Untrained	
Favourable / Positive	***Unfavourable / Negative***	***Favourable / Positive***	***Unfavourable / Negative***
Relaxed (45%)	Anxious (55%)	Relaxed (45%)	Anxious (55%)
Encouraged (54%)	Discouraged (46%)	**Encouraged (56%)**	Discouraged (44%)
Satisfied (47%)	Dissatisfied (53%)	**Satisfied (49%)**	Dissatisfied (51%)
Confident (52%)	Diffident (48%)	**Confident (58%)**	Diffident (42%)
Self-assured (48%)	Worried (52%)	**Self-assured (53%)**	Worried (47%)

NOTE: The highlighted shows positive emotional reaction to teaching children with SEN.

Table 6.25: Summary of scores of trained and untrained teachers' emotional reaction in teaching ten categories of children with SEN (N=100)

10 CATEGORIES	**Relaxed**		anxious		**Encouraged**		discouraged		**Satisfied**		dissatisfied		**Confident**		diffident		**Self-assured**		worried	
	Tra	Unt	Tra	Unt	Tra	Unt	Tra	Unt	Tra	Unt	Tra	Unt	Tra	Unt	Tra	Unt	Tra	Unt	Tra	Unt
Mild to mod int. df	42	7	40	9	63	11	19	5	56	7	26	9	59	11	23	5	60	10	22	6
Emotional & beh. df	29	9	53	7	52	14	30	2	53	9	29	7	53	12	29	4	49	8	33	8
Physical disoders	47	6	35	10	62	15	20	1	52	15	30	1	61	15	21	1	58	15	24	1
Health disorders	41	8	41	8	50	12	32	4	46	12	36	4	50	12	32	4	42	10	40	6
Hard-of-hearing	40	9	42	7	47	8	35	8	36	6	46	10	37	8	45	8	35	10	47	6
Low vision	39	6	43	10	57	11	25	5	52	9	30	7	56	11	26	5	54	10	28	6
Speech & lang. diff	39	9	43	7	53	11	29	5	42	11	40	5	48	11	34	5	45	11	37	5
Sev to prof. Int. dif.	29	6	53	10	23	3	59	13	24	5	58	11	27	5	55	11	21	6	61	10
Deafness	34	5	48	11	18	1	64	15	15	1	67	15	17	3	65	13	12	2	70	14
Blindness	31	7	51	9	19	4	63	12	13	3	69	13	17	5	65	11	14	3	68	13
TOTAL	371	72	449	88	444	90	376	70	389	78	431	82	425	93	395	67	390	85	430	75
Derived Proportions	**4.5**	**4.5**	5.5	5.5	**5.4**	**5.6**	4.6	4.4	**4.7**	**4.9**	5.3	5.1	**5.2**	**5.8**	4.8	4.2	**4.8**	**5.3**	5.2	4.7
Percentages (%)	**45**	**45**	55	55	**54**	**56**	46	44	**47**	**49**	53	51	**52**	**58**	48	42	**48**	**53**	52	47

There was a slight change in the results when the severe to profound intellectual difficulties, deafness and blindness SEN categories were excluded from analysis (see summary on Table 6.26 and Box 6.7). The trained reported positively on four of the bipolar emotional reaction instead of the previous two making it appear they were not emotionally well disposed to children with severe to profound intellectual difficulties, deafness and blindness. Though the untrained remained positive on the four, what was found was that the scores shot up. Additionally, the scores of the untrained were higher than their trained counterparts.

To sum up, the untrained, rather than the trained, showed positive emotional reaction in teaching children with SEN. In the analysis of the ten, the untrained were positive in four but the trained were only positive in two. The untrained were encouraged, satisfied, confident and self-assured. On the other hand, the trained were positive in two; they were encouraged and confident. Both the trained and the untrained were positive in four when the severe to profound intellectual difficulties, deafness and blindness were excluded from the analysis. However, they were not relaxed.

Box 6.7: Summary of type of teachers' emotional reaction in teaching seven categories of children with SEN: percentage of trained and untrained teachers (N=100)

Trained		**Untrained**	
Favourable / Positive	*Unfavourable / Negative*	*Favourable / Positive*	*Unfavourable / Negative*
Relaxed (48.6%)	Anxious (51.4%)	Relaxed (48.6%)	Anxious (51.4%)
Encouraged (67.1%)	Discouraged (32.9%)	**Encouraged (72.9%)**	Discouraged (27.1%)
Satisfied (58.6%)	Dissatisfied (41.4%)	**Satisfied (61.4%)**	Dissatisfied (38.6%)
Confident (62.9%)	Diffident (37.1%)	**Confident (71.4%)**	Diffident (28.6%)
Self-assured (60.0%)	Worried (40.0%)	**Self-assured (65.7%)**	Worried (34.3%)

NOTE: The highlighted shows positive emotional reaction to teaching children with SEN.

Table 6.26: Summary of scores of trained and untrained teachers' emotional reaction in teaching seven categories of children with SEN (N=100)

7 CATEGORIES	Relaxed		anxious		Encouraged		discouraged		Satisfied		dissatisfied		Confident		diffident		Self-assured		worried	
	Tra	Unt	Tra	Unt	Tra	Unt	Tra	Unt	Tra	Unt	Tra	Unt	Tra	Unt	Tra	Unt	Tra	Unt	Tra	Unt
MMID	42	7	40	9	63	11	19	5	56	7	26	9	59	11	23	5	60	10	22	6
EBD	29	9	53	7	52	14	30	2	53	9	29	7	53	12	29	4	49	8	33	8
PD	47	6	35	10	62	15	20	1	52	15	30	1	61	15	21	1	58	15	24	1
HD	41	8	41	8	50	12	32	4	46	12	36	4	50	12	32	4	42	10	40	6
HoH	40	9	42	7	47	8	35	8	36	6	46	10	37	8	45	8	35	10	47	6
LV	39	6	43	10	57	11	25	5	52	9	30	7	56	11	26	5	54	10	28	6
SLD	39	9	43	7	53	11	29	5	42	11	40	5	48	11	34	5	45	11	37	5
TOTAL	277	54	297	58	384	82	190	30	337	69	237	43	364	80	210	32	343	74	231	38
Derived Proportions	**3.4**	**3.4**	3.6	3.6	**4.7**	**5.1**	2.3	1.9	**4.1**	**4.3**	2.9	2.7	**4.4**	**5.0**	2.6	2.0	**4.2**	**4.6**	2.8	2.4
Percentage (%)	**48.6**	**48.6**	51.4	51.4	**67.1**	**72.9**	32.9	27.1	**58.6**	**61.4**	41.4	38.6	**62.9**	**71.4**	37.1	28.6	**60.0**	**65.7**	40.0	34.3

4. Measuring differences in emotional reactions in teaching children with SEN on the basis of teachers' length of teaching experience

This section deals with analysis of teachers' emotional reaction when length of teaching experience is used as a factor. The statistics of those who responded correctly to the items on which proportions were based were as follows: Less than 1 year, 8; 1-3 years, 14; 4-6 years, 13; 7-9 years, 18; and 10 years or more, 7.

It appeared a teacher's length of teaching experience had no impact on his or her emotional reaction in teaching children with SEN (see summary on Table 6.27 and Box 6.8). It was found that teachers with less than 1 year teaching experience and those who had taught for 7 years or more were all emotionally anxious, dissatisfied and worried in teaching children with SEN. It was only the 1-3 years who appeared to be very positive emotionally in teaching children with SEN. This group scored 4 out of the 5 emotional tendencies. Teachers with less than 1 year length of teaching experience had the most unfavourable emotional reaction in teaching children with SEN. This was followed by the 7-9 years and the ten (10) or more years.

The 7-9 years and the ten (10) or more years reported the same negative emotional tendencies. They were anxious, dissatisfied and worried. Apart from the less than one year, all reported being encouraged emotionally in teaching children with SEN. For those with 4-6 years apart from being encouraged and satisfied, they were neutral in three other bipolar emotional reactions.

In summary, length of teaching experience did not appear to influence teachers' emotional reaction in teaching children with SEN. Irrespective of the number of years a teacher had taught, in teaching children with SEN, there was anxiety, dissatisfaction and worry.

Table 6.27: Summary of scores of teachers' emotional reactions in teaching ten categories of children with SEN on the basis of length of teaching experience (N=100)

10 CAT	Relaxed					anxious					Encouraged					discouraged					Satisfied				
	< 1	1 - 3	4 - 6	7 - 9	10 +	< 1	1 - 3	4 - 6	7 - 9	10 +	< 1	1 - 3	4 - 6	7 - 9	10 +	< 1	1 - 3	4 - 6	7 - 9	10 +	< 1	1 - 3	4 - 6	7 - 9	10 +
Mild to mod int. df	3	8	8	12	20	5	6	5	6	27	5	11	9	14	37	3	3	4	4	10	5	7	7	10	36
Emotional & beh. df	3	6	6	8	17	5	8	7	10	30	4	10	7	14	33	4	4	6	4	14	5	9	8	12	30
Physical disoders	3	9	7	13	23	5	5	6	5	24	7	12	11	16	33	1	2	2	2	14	7	10	11	16	25
Health disorders	2	10	9	9	20	6	4	4	9	27	6	6	8	12	31	2	8	5	6	16	6	6	7	11	29
Hard-of-hearing	4	9	7	10	20	4	5	6	8	27	2	7	9	12	26	6	7	4	6	21	1	6	8	10	18
Low vision	3	8	9	11	15	5	6	4	7	32	5	12	10	16	26	3	2	3	2	21	4	11	10	12	25
Speech & lang. diff	4	7	6	9	24	4	7	7	9	23	3	11	8	12	32	5	3	5	6	15	3	10	8	9	25
Sev to prf. int.df.	6	6	3	5	16	2	8	10	13	31	2	5	3	1	16	6	9	10	17	31	2	4	5	2	17
Deafness	5	5	5	5	19	3	9	8	13	28	1	1	2	3	12	7	13	11	15	35	1	1	0	3	11
Blindness	4	5	5	5	19	4	9	8	13	28	1	2	4	4	12	7	12	9	14	35	1	2	3	1	9
TOTAL	**37**	**73**	**65**	**87**	**193**	**43**	**67**	**65**	**93**	**277**	**36**	**77**	**71**	**104**	**258**	**44**	**63**	**59**	**76**	**212**	**35**	**66**	**67**	**86**	**225**
Percentage %	**3.7**	**7.3**	**6.5**	**8.7**	**19.3**	**4.3**	**6.7**	**6.5**	**9.3**	**27.7**	**3.6**	**7.7**	**7.1**	**10.4**	**25.8**	**4.4**	**6.3**	**5.9**	**7.6**	**21.2**	**3.5**	**6.6**	**6.7**	**8.6**	**22.5**

Table 6.27 (contn): Summary of scores of teachers' emotional reactions in teaching ten categories of children with SEN on the basis of length of teaching experience (N=100)

10 CAT	dissatisfied					Confident					diffident					Self-assured					worried				
	< 1	1 - 3	4 - 6	7 - 9	10 +	< 1	1 - 3	4 - 6	7 - 9	10 +	< 1	1 - 3	4 - 6	7 - 9	10 +	< 1	1 - 3	4 - 6	7 - 9	10 +	< 1	1 - 3	4 - 6	7 - 9	10 +
Mild to mod int. df	3	7	6	8	11	5	10	8	12	37	3	4	5	6	10	5	11	7	12	37	3	3	6	6	10
Emotional & beh. df	3	5	5	6	17	4	11	6	12	34	4	3	7	6	13	3	9	6	9	32	5	5	7	9	15
Physical disoders	1	4	2	2	22	7	10	12	16	33	1	4	1	2	14	7	11	11	16	30	1	3	2	2	17
Health disorders	2	8	6	7	18	6	7	7	12	31	2	7	6	6	16	5	4	7	9	28	3	10	6	9	19
Hard-of-hearing	7	8	5	8	29	2	7	6	10	21	6	7	7	8	26	2	7	6	9	22	6	7	7	9	25
Low vision	4	3	3	6	22	5	12	11	16	24	3	2	2	2	23	4	12	11	14	24	4	2	2	4	23
Speech & lang. diff	5	4	5	9	22	4	11	7	11	28	4	3	6	7	19	4	10	7	10	27	4	4	6	8	20
Sev to prof. Int. dif.	6	10	8	16	30	2	7	5	2	17	6	7	8	16	30	1	7	7	2	11	7	7	6	16	36
Deafness	7	13	13	15	36	1	3	0	5	11	7	11	13	13	36	1	2	0	3	8	7	12	13	15	39
Blindness	7	12	10	17	38	1	2	3	4	12	7	12	10	14	35	0	2	3	1	11	8	12	10	17	36
TOTAL	**45**	**74**	**63**	**94**	**245**	**37**	**80**	**65**	**100**	**248**	**43**	**60**	**65**	**80**	**222**	**32**	**75**	**65**	**85**	**230**	**48**	**65**	**65**	**95**	**240**
Percent %	4.5	7.4	6.3	9.4	24.5	3.7	8.0	6.5	10.0	24.8	4.3	6.0	6.5	8.0	22.2	3.2	7.5	6.5	8.5	23.0	4.8	6.5	6.5	9.5	24.0

Box 6.8: Showing type of emotional reactions teachers experience in teaching ten categories of children with SEN on the basis of length of teaching experience (N=100)

LENGTH OF TEACHING EXPERIENCE	Favourable emotional reaction	Neutral (that is neither favourable nor unfavourable)	Unfavourable emotional reaction
Less than 1 year			i. Anxious ii. Discouraged iii. Dissatisfied iv. Diffident v. Worried
1-3 years	i. Relaxed ii. Encouraged iv. Confident v. Self-assured		iii. Dissatisfied
4-6 years	ii. Encouraged iii. Satisfied	i. Neither relaxed nor anxious iv. Neither confident nor iv. diffident v. Neither self-assured nor worried	
7-9 years	ii. Encouraged iv. Confident		i. Anxious iii. Dissatisfied v. Worried
10 years or more	ii. Encouraged iv. Confident		i. Anxious iii. Dissatisfied v. Worried

5. <u>Measuring differences in emotional reactions in teaching children with SEN on the basis of teachers' level of teaching experience</u>

This section is concerned with finding differences in emotional reaction between teachers who had taught and those who had not taught children with SEN. The number of those who had taught children with SEN was 74 and those who had not taught them were 26. The statistics on Table 6.28 and summary in Box 6.9 indicate that in four (4) of the bipolar emotional reactions, those teachers who had taught children with SEN showed positivity in four of the bipolar emotional reactions whereas those who had not taught them were only positive in one. It was found that teachers who had taught children with SEN were encouraged, satisfied, confident and self-assured, while those who had not taught them were only encouraged. When three

of the SEN categories namely the severe to profound intellectual difficulties, deafness and blindness were excluded from analysis, the results were the same favouring those who had taught children with SEN.

Thus, teachers who had taught children with SEN appeared to be more positive emotionally than those who had not taught them. Those who had taught them were encouraged, satisfied, confident and self-assured. But teachers who had not taught them were only encouraged.

Box 6.9: Showing type of emotional reaction of teachers on the basis of level of experience with children with SEN (N=100)

TAUGHT CHILDREN WITH SEN	Favourable emotional reaction	Unfavourable emotional reaction
Yes	Encouraged Satisfied Confident Self-assured	Anxious
No	Encouraged	Anxious Dissatisfied Diffident Worried

Table 6.28: Summary of scores of teachers' emotional reactions on the basis of level of experience with children with SEN

TEN (10)	Relaxed		anxious		Encourage		Discourage		Satisfied		dissatisfied		Confident		diffident		Self-assured		worried	
CAT	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Mild to mod intel diff.	40	11	34	15	56	20	18	6	50	15	24	11	53	19	21	7	55	17	19	9
Emot. & beh diffs	29	11	45	15	51	17	23	9	50	14	24	12	51	16	23	10	43	16	31	10
Physical disorders	40	15	34	11	57	22	17	4	51	18	23	8	56	22	18	4	55	20	19	6
Health disorders	38	12	36	14	49	14	25	12	46	13	28	13	49	14	25	12	42	11	32	15
Hard-of-hearing	36	14	38	12	44	12	30	14	34	9	40	17	37	9	37	17	36	10	38	16
Low vision	35	11	39	15	57	12	17	14	51	11	23	15	55	13	19	13	55	10	19	16
Speech & Lang. dis.	36	14	38	12	51	15	23	11	44	11	30	15	49	12	25	14	48	10	26	16
Sev. to prof. intel. diff.	25	11	49	15	20	7	54	19	21	9	53	17	25	8	49	18	20	8	54	18
Deafness	30	9	44	17	15	4	59	22	13	3	61	23	16	4	58	22	10	4	64	22
Blindness	30	8	44	18	14	9	60	17	9	7	65	19	14	8	60	18	10	7	64	19
TOTAL	339	116	401	144	**414**	**132**	326	128	**369**	110	371	150	**405**	125	335	135	**374**	113	366	147
Percentag(100%)	33.9	11.6	40.1	14.4	**41.4**	**13.2**	32.6	12.8	**36.9**	11.0	37.1	15.0	**40.5**	12.5	33.5	13.5	**37.4**	11.3	36.6	14.7

NOTE: The highlighted shows positive emotional reaction in teaching children with SEN.

6. Measuring differences in emotional reactions on the basis of teachers' knowledge of children with SEN

This part is the analysis of emotional reactions between teachers who knew and those who did not know how to teach children with SEN. There were 65 who had taught children with SEN. Teachers who had not taught them were 35. It was found that (see summary on Table 6.29 and Box 6.10) there was no difference in the emotional reactions of those who had and those who did not have knowledge in teaching children with SEN. They both reported two positives and three negatives. The positives were encouraged and confident and the negatives were anxious, dissatisfied, and worried.

In summary, there was no difference in emotional reaction between teachers who had knowledge and those who did not have knowledge about how to teach children with SEN. They were both encouraged and confident, but they seemed anxious, dissatisfied and worried.

Box 6.10: Showing type of teachers' emotional reactions on the basis of teachers' knowledge of how to teach children with SEN (N=100)

KNOWLEDGE OF HOW TO TEACH CHILDREN WITH SEN	Favourable emotional reaction	Unfavourable emotional reaction
Yes	Encouraged Confident	Anxious Dissatisfied Worried
No	Encouraged Confident	Anxious Dissatisfied Worried

Table 6.29: Summary of scores of emotional reactions on the basis of teachers' knowledge of how to teach children with SEN

TEN (10) CAT	Relaxed		anxious		Encouraged		Discouraged		Satisfied		dissatisfied		Confident		diffident		Self-assured		worried	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Mild to mod int. difficult.	36	15	29	20	49	27	16	8	41	24	24	11	46	26	19	9	48	24	17	11
Emot. and beh. diff.	23	17	42	18	43	25	22	10	40	24	25	11	42	25	23	10	34	25	31	10
Physical disorders	36	19	29	16	51	28	14	7	45	24	20	11	51	27	14	8	49	26	16	9
Health disorders	35	15	30	20	42	21	23	14	40	19	25	16	42	21	23	14	34	19	31	16
Hard-of-hearing	32	18	33	17	39	17	26	18	28	15	37	20	34	12	31	23	33	13	32	22
Low vision	32	14	33	21	48	21	17	14	42	20	23	15	48	20	17	15	48	17	17	18
Speech and language difficulties	31	19	34	16	46	20	19	15	35	20	30	15	41	20	24	15	38	20	27	15
Severe and prof. and int difficulties	20	16	45	19	17	10	48	25	19	11	46	24	24	9	41	26	18	10	47	25
Deafness	23	16	42	19	14	5	51	30	12	4	53	31	14	6	51	29	10	4	55	31
Blindness	23	15	42	20	13	10	52	25	6	10	59	25	12	10	53	25	8	9	57	26
TOTAL	291	164	359	186	**362**	**184**	288	166	308	171	342	179	**354**	**176**	296	174	320	167	330	183
Percentages %	29	16	36	19	**36**	**18**	29	17	31	17	34	18	**35**	**18**	30	17	32	17	33	18

NOTE: The highlighted shows positive emotional reaction in teaching children with SEN.

E. ANALYSIS OF INTERVIEW DATA

This section deals with analysis of the interview data. It also aims at establishing similarities and differences between the interview and questionnaire data.

Statistics of interviewees

There were sixteen (16) respondents with equal number of males and females. The trained teachers were nine (9) and untrained seven (7). The Northern Region had the highest number of respondents. Of the six (6) interviewed in the region, four (4) were male and two (2) female teachers but the number of the trained and untrained was the same. In the Ashanti and Central Regions, there were five (5) respondents each. Each of these two regions had three (3) trained and two (2) untrained teachers. In the urban areas of the Ashanti and Central Regions, there were no untrained teachers interviewed (see Table 6.30).

Table 6.30: Statistics of interviewees (teachers selected from Northern, Ashanti and Central regions of Ghana) (April – June 2005)

REGION	LOCATION	GENDER	AGE	QUALIFICATION.	TEACHING EXPERIENCE.	DATE INTERVIEWED	TIME
NORTHERN REGION Transc. 1 (pp. 2-13)	*Urban Trained*	Female	26 years	Cert A 3 year	4 years	26:04:05	10:30- 10:50 am
Transc. 2 (pp. 14-26)	*Urban Untrained*	Male	40 years	General Certificate Examination Ordinary Level (GCE O' L)	22 years	26:04:05	2:15 2:37 pm
Transc. 3 (pp. 27-36)	*Semi- Urban Trained*	Male	24 years	Cert A 3 year	1 year	27:04:05	10:30- 10:57 am
Transc. 4 (pp. 37-49)	*Semi- Urban Untrained*	Female	34 years	GCE O' L	7 years	27:04:05	3:00- 3:25 pm
Transc. 5 (pp. 50-59)	*Rural Trained*	Male	27 years	Cert A 3 year	Less than 1 year	28:04:05	10:15-1037am
Transc. 6 (pp. 60-68)	*Rural Untrained*	Male	42 years	Middle School Leaving Certificate	22 years	28:04:05	3:15-3:37pm
ASHANTI REGION Transc. 7 (pp. 69-77)	*Urban Trained*	Female	43 years	Bachelor of Arts (Social Sciences) & Cert A 3 year	9 years	11:05:05	8:05- 8:25 am
	Urban						

ASHANTI	*Untrained*						
Transc. 8 (pp. 78=90)	*Semi- Urban Trained*	Female	32 years	Cert A 3 year	11 years	19:05:05	9:30- 9:50 am
Transc. 9 (pp. 91-101)	*Semi- Urban Untrained*	Male	24 years	High National Diploma Furniture	Less than 1 year	20:05:05	10:10- 10:38 am
Transc. 10 (pp. 102-111)	*Rural Trained*	Female	45 years	Cert A 3 year	13 years	27:05:05	8:00- 8:30 am
Transc. 11 (pp. 112-123)	*Rural Untrained*	Male	45 years	Middle School Leaving Certificate	22 years	20:05:05	11:45- 12:10 am
CENTRAL REGION Transc. 12 (pp. 124-134)	*Urban Trained*	Female	39 years	Bachelor of Education (Primary Education)	6 years	21:06:05	3:30- 4:00 pm
CENTRAL	*Urban Untrained*						
Transc. 13 (pp. 135-146)	*Semi- Urban Trained*	Female	36 years	Cert A 3 year	14 years	15:06:05	9:50- 10:15 am
Transc. 14 (pp. 147-158)	*Semi- Urban Untrained*	Female	35 years	GCE O' L	9 years	16:06:05	8:25- 8:45 am
Transc. 15 (pp. 159-168)	*Rural Trained*	Male	42 years	Cert A 3 year	11 years	22:06:05	10:50- 11:25 am
Transc. 16 (pp. 169-178)	*Rural Untrained*	Male	37 years	Senior School Certificate Examination & Under diplomate through dist. Learning	2 years	22:06:05	11:30- 12:00 noon

1. Measuring teachers' preference of educational provisions for children on the basis of type of SEN

1i. Results of interview data

This section deals with the analysis of educational provisions teachers were predicted to make for children with SEN. In the statistics of the ten SEN categories (see summary on Table 6.31 and Figure 6.11) segregation was regarded as the most appropriate educational provision for children with SEN. This was followed by the mainstream without support. However, when the deaf and blind were excluded from the analysis (see summary on Table 6.32 and Figure 6.11), the mainstream without support was regarded as the most suitable followed by the mainstream with support. Segregation was at the bottom and the least favoured of the three educational provisions.

Figure 6.11: Teachers' preference of educational provision in teaching children with SEN (N=16)

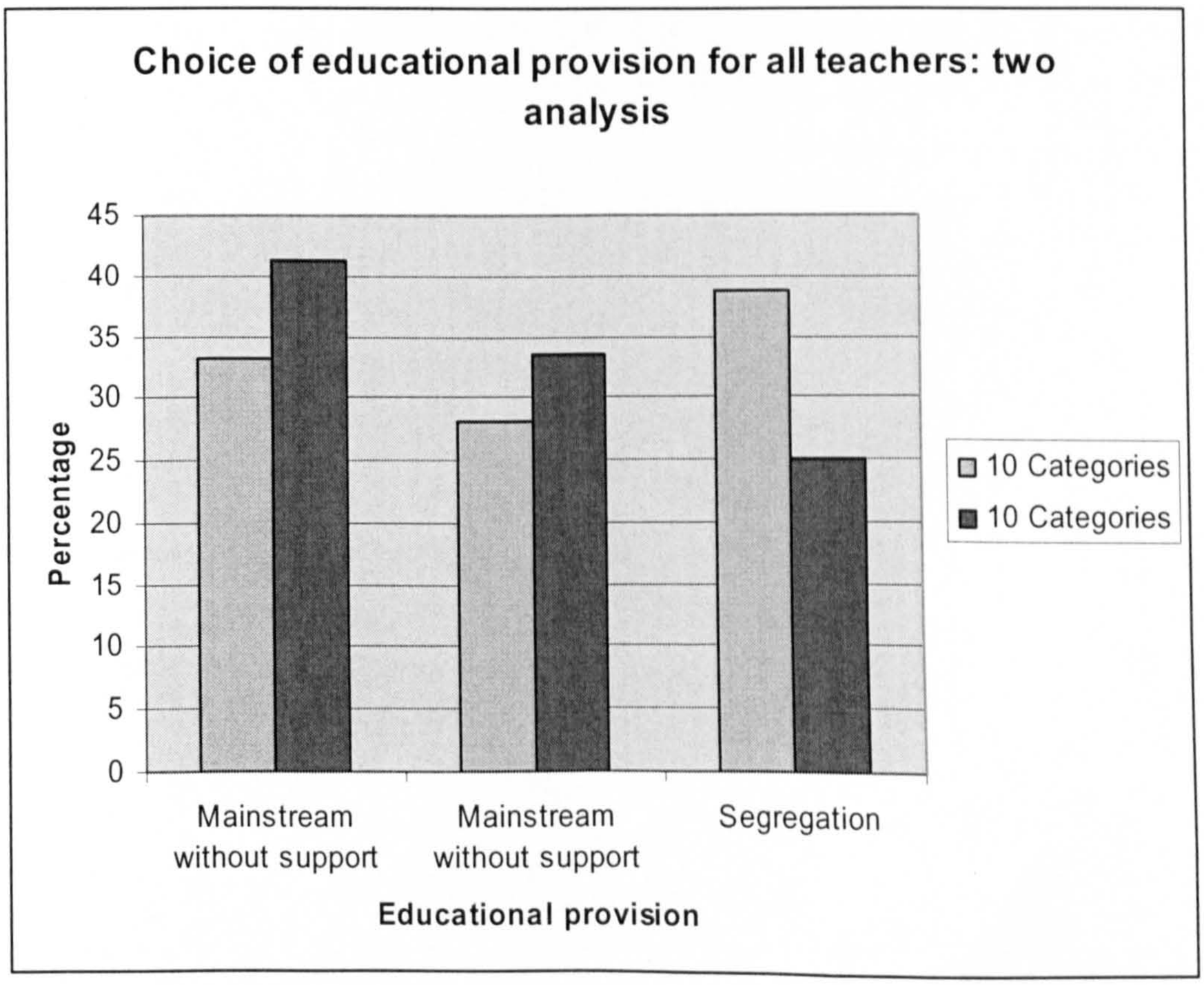


Table 6.31: Summary of interview scores of teachers on preference of educational provision for ten SEN categories (N=16)

TEN (10) CATEGORIES	Mainstream without support Number	Mainstream with support Number	Segregation Number	Total
Mild to mod. intell. diff	5	9	2	16
Emot and beh. difficulties	8	3	5	16
Physical disorders	4	7	5	16
Health disorders	7	5	4	16
Hard-of-hearing	6	5	5	16
Low vision	11	4	1	16
Speech and language diff.	7	4	5	16
Severe to prof. intell. diff	5	6	5	16
Deafness	0	1	15	16
Blindness	0	1	15	16
TOTAL	53	45	62	160
Percentage (%)	**33.1**	**28.1**	**38.8**	

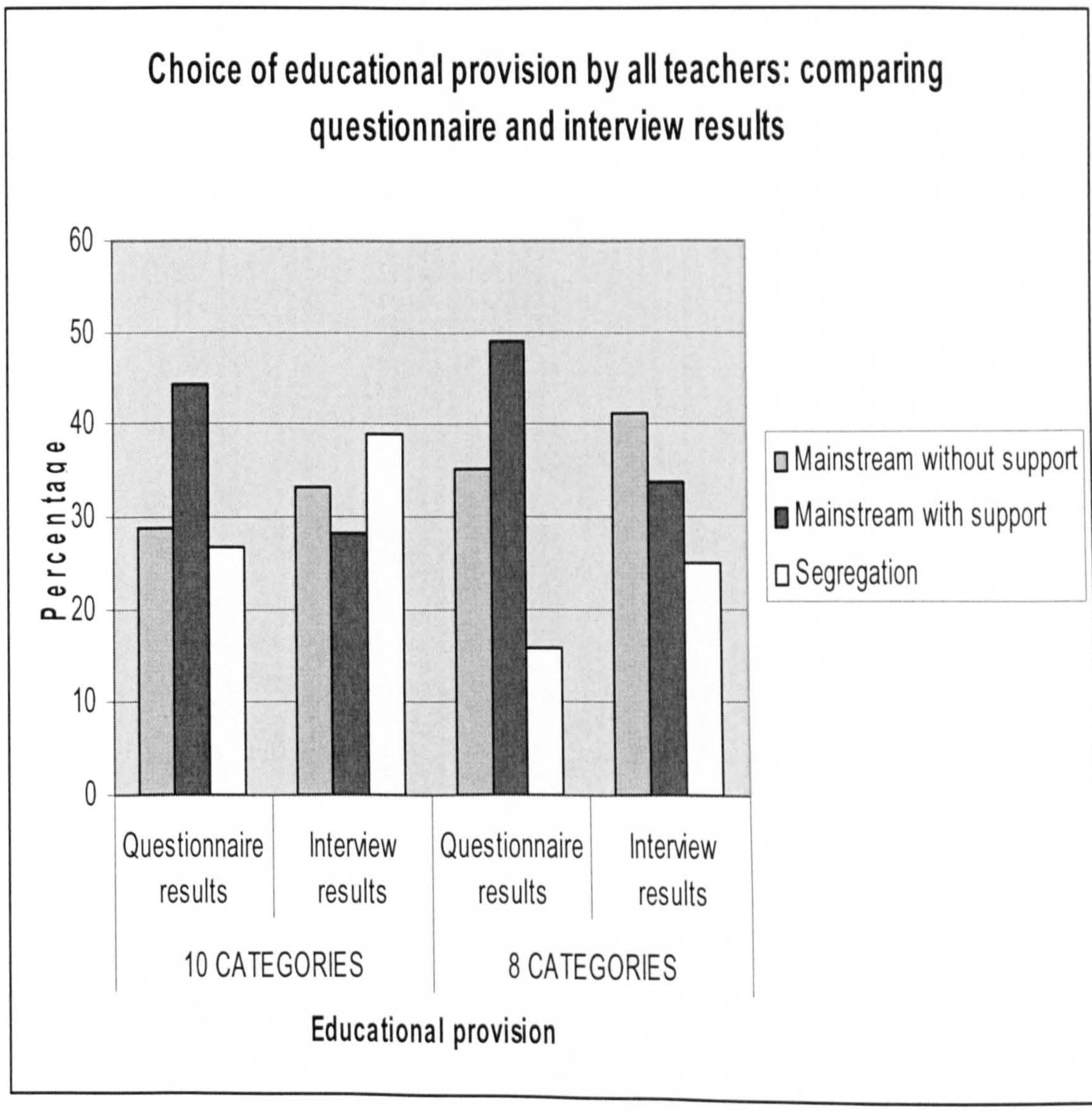
Table 6.32: Summary of interview scores of teachers on preference of educational provision for eight SEN categories (N=16)

EIGHT (8) CATEGORIES	Mainstream without support Number	Mainstream with support Number	Segregation Number	Total
Mild to moderate intell. diffi	5	9	2	16
Emot and behaviour difficulties	8	3	5	16
Physical disorders	4	7	5	16
Health disorders	7	5	4	16
Hard-of-hearing	6	5	5	16
Low vision	11	4	1	16
Speech and language difficulties	7	4	5	16
Severe to profound intell. diff	5	6	5	16
Total	53	43	32	128
Percentage (%)	**41.4**	**33.6**	**25.0**	

1ii. Comparing results of questionnaire and interview data

In the results of the ten different SEN categories some differences were found in the questionnaire and interview results (see summary on Figure 6.12). The questionnaire data showed teachers were more positive in mainstream with support educational provision. In the interview results, this pattern was not reflected for segregation was conceived as the most suitable educational option for children with SEN. But in the results of the eight SEN categories where the deaf and blind were excluded, the two were comparable. It was, for example, found that in both results teachers were less positive to segregating children with SEN

Figure 6.12: Teachers' preference of educational provision for children with SEN: comparing questionnaire and interview results



2. Measuring differences in teachers' preference of educational provision for children with SEN on the basis of gender

2i. Results of interview data

This section is concerned with the analysis of gender differences in attitudes to educational provisions for children with SEN. The statistics of Table 6.33 and Figure 6.13 show that in mainstream without support educational provision, female teachers were more supportive. But the male teachers were more favourable to the mainstream with support and segregation than the female teachers.

Figure 6.13: Teachers' preference of educational provision for children with SEN by gender (N=16): interview results

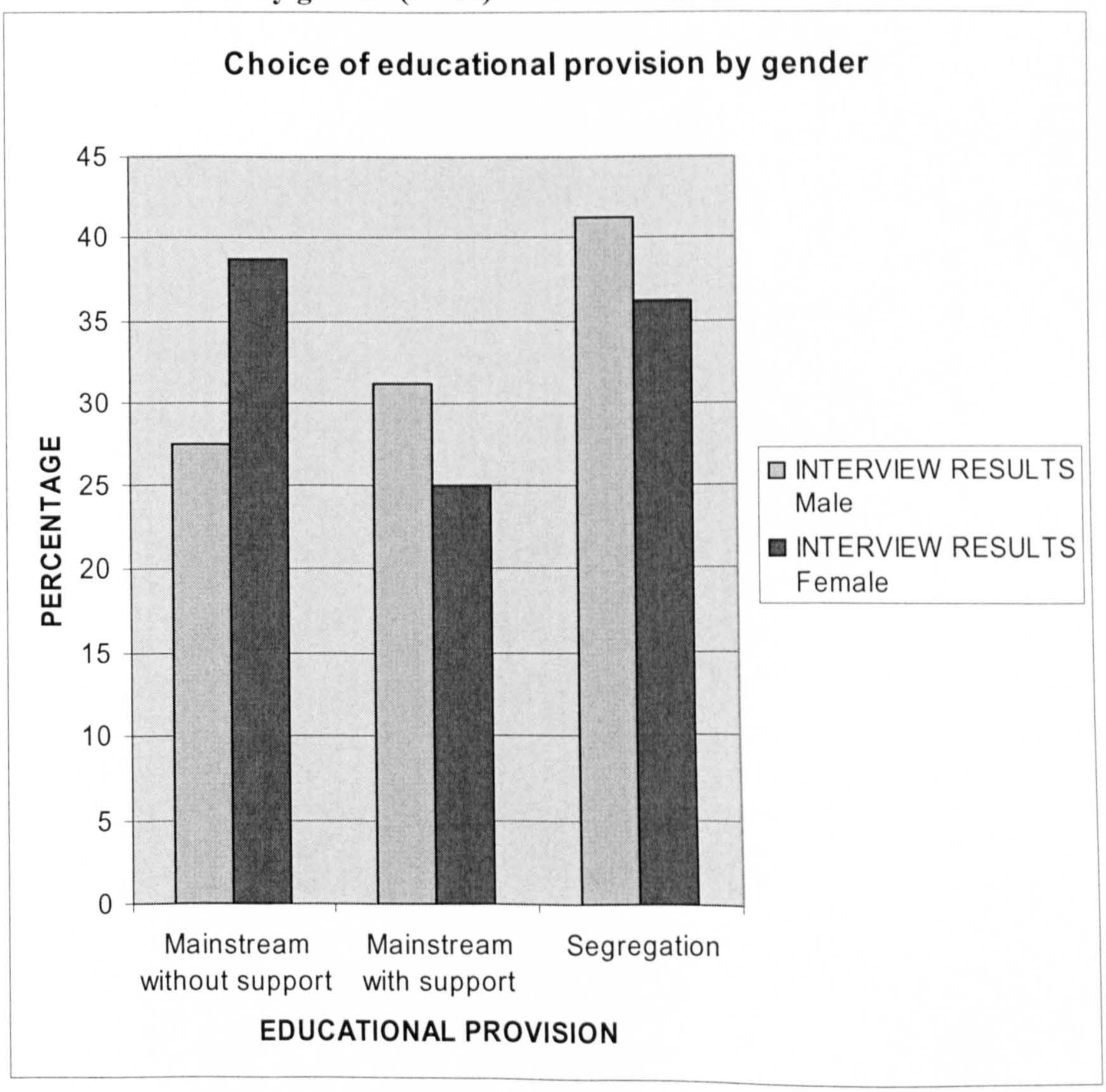


Table 6.33: Summary of interview scores of teachers on preference of educational provision for children with SEN by gender (N=16)

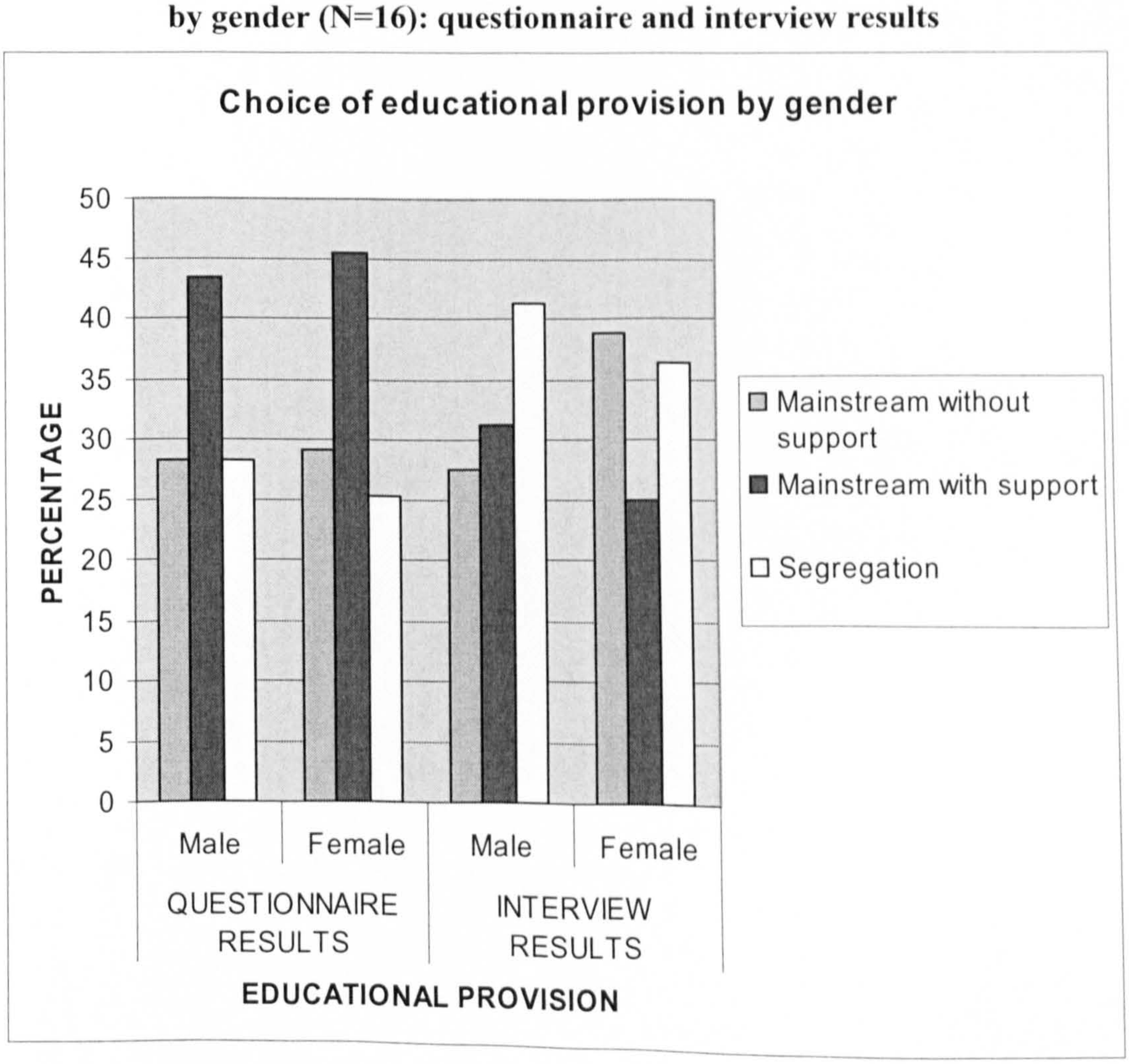
TEN (10) CATEGORIES	Mains. without support		Mainstream with support		Segregation	
	Male	Female	Male	Female	Male	Female
Mild to moderate intellectual difficulties	3	2	4	5	1	1
Emot. and behavioural difficulties	3	5	3	0	2	3
Physical disorders	0	4	5	2	3	2
Health disorders	4	3	3	2	1	3
Hard-of-hearing	2	4	3	2	3	2
Low vision	5	6	2	2	1	0
Speech and language difficulties	4	3	2	2	2	3
Severe to prof. intellectual diff.	1	4	3	3	4	1
Deafness	0	0	0	1	8	7
Blindness	0	0	0	1	8	7
TOTAL	22	31	25	20	33	29
Percentage (%)	**27.50**	**38.75**	**31.25**	**25.00**	**41.25**	**36.25**

2ii. Comparing results of questionnaire and interview data

The two results were comparable to some extent (see summary on Figure 6.14). In the two results, support for mainstream was relatively more than segregation. Similarly, in both the questionnaire and interview data, more of the male teachers than female favoured segregating children with SEN. However, it was found that in the interview results, the percentage of male and female teachers who favoured segregation was greater than that obtained in the questionnaire. Additionally, the proportion of male and female teachers who favoured the mainstream with support option was relatively greater than that obtained in the Interview results.

To sum up, the two results showed that female teachers better favoured the mainstream with support than the male teachers. But the male teachers were more supportive of segregation than the female counterparts. In the interview results, support for segregation was greater than it was in the questionnaire results.

Figure 6.14: Teachers' preference of educational provision for children with SEN by gender (N=16): questionnaire and interview results



3. Measuring teachers' preference of educational provisions for children with SEN on the basis of teachers' qualification

In this section the analysis focused on the trained and untrained. It was found that while 67% of the trained teachers supported mainstream education, there were 54% of the untrained who favoured it (see the summary on Table 6.34 and Figure 6.15). This meant that the trained were more in favour of mainstream education than the untrained. But in segregation provision, it was found that there were more untrained (46%) than the trained (33%) who supported it. This meant that in segregation provision, there would be more untrained who would support it.

Figure 6.15: Showing preference of educational provision by trained and untrained teachers for children with SEN (N=16)

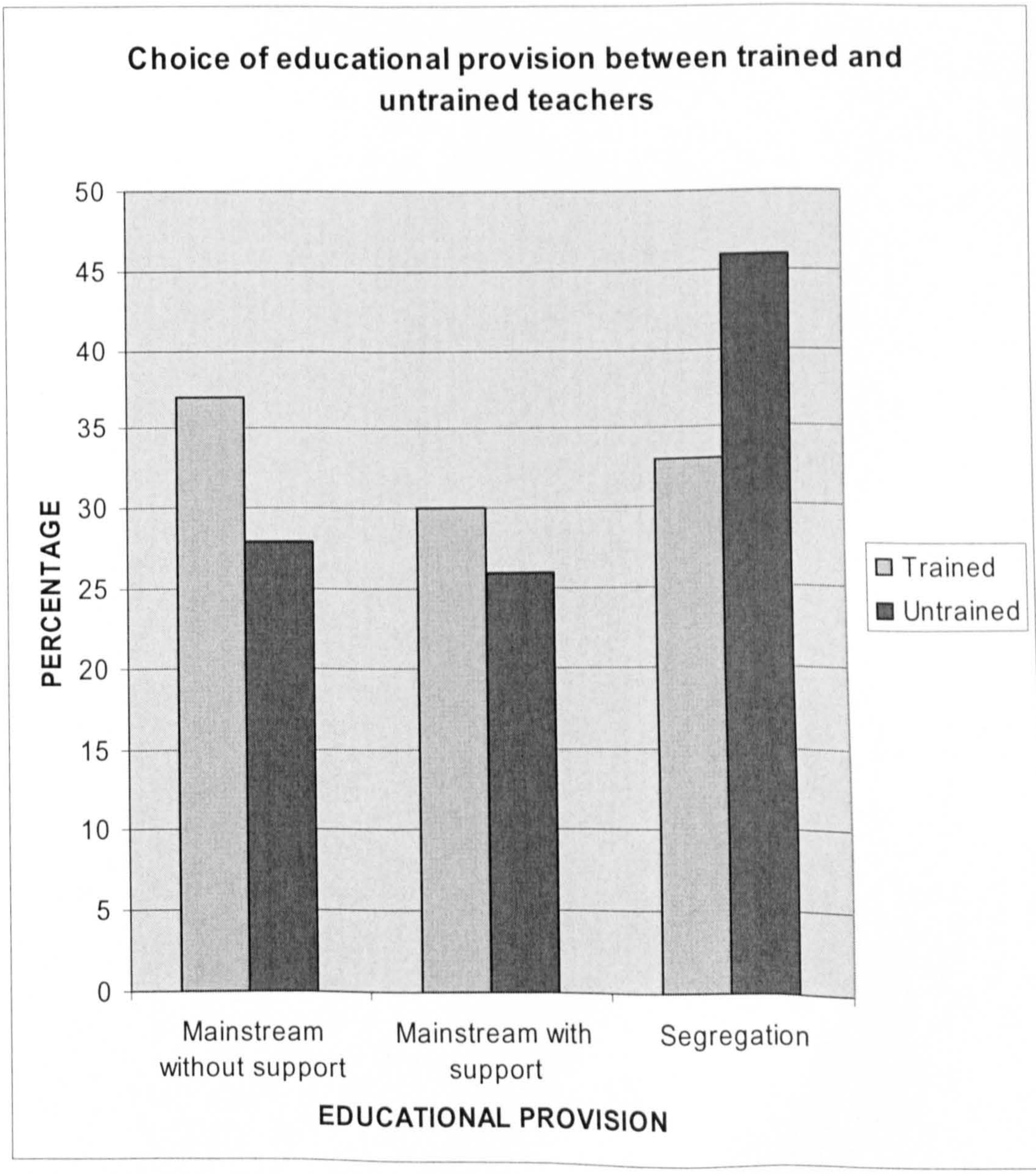


Table 6.34: Summary of interview scores of trained and untrained teachers on preference of educational provision for children with SEN (N=16)

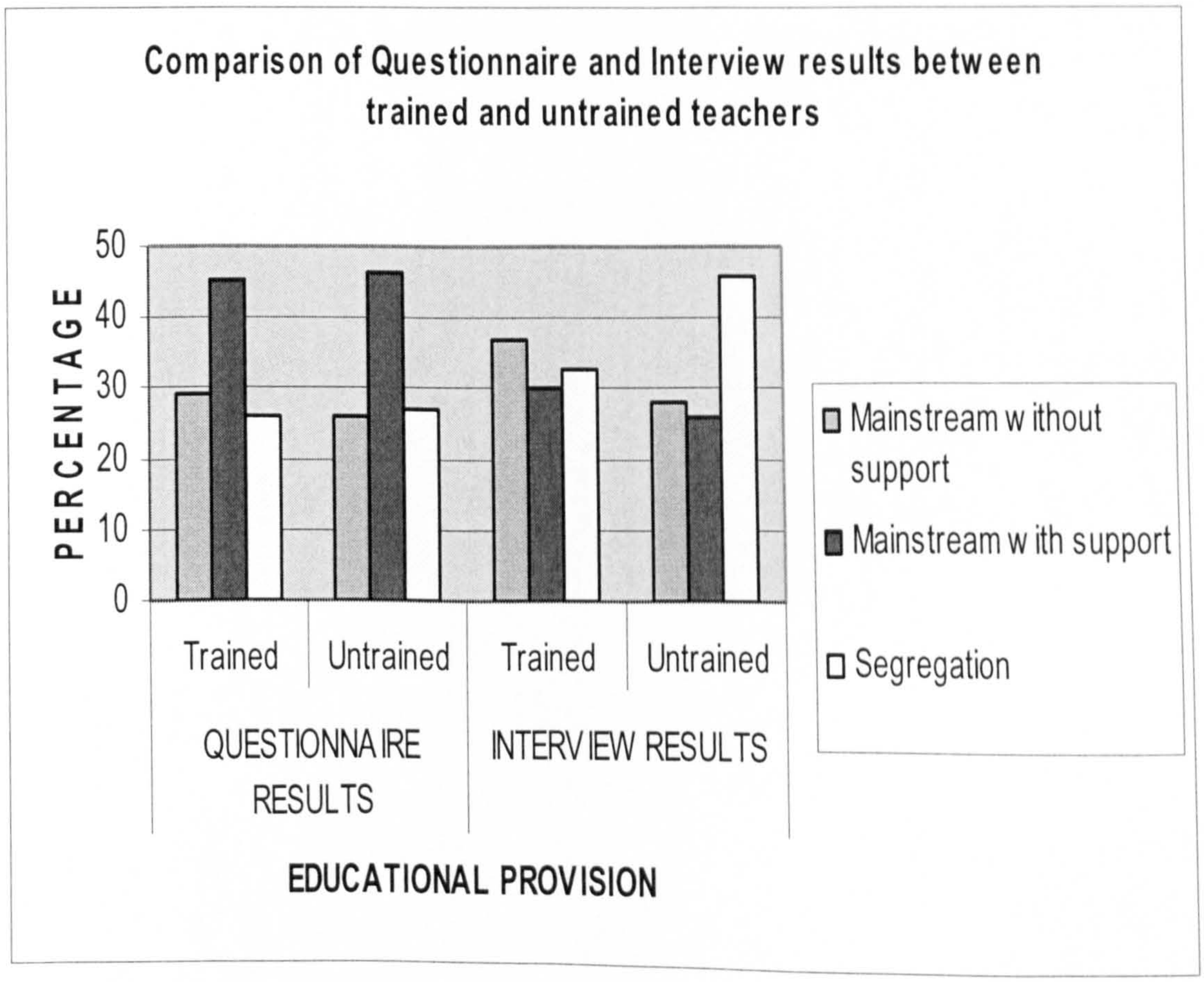
TEN (10) CATEGORIES	Mainstream without support		Mainstream with support		Segregation	
	Trained	Untrained	Trained	Untrained	Trained	Untrained
Mild to moderate intel. diff.	2	3	7	2	0	2
Emotional and beh. diff.	6	2	0	3	3	2
Physical disorders	3	1	4	3	2	3
Health disorders	4	3	3	2	2	2
Hard-of-hearing	5	1	2	3	2	3
Low vision	6	5	3	1	0	1
Speech and language diff.	5	2	1	3	3	2
Severe to profound intel. diff.	2	3	5	1	2	3
Deafness	0	0	1	0	8	7
Blindness	0	0	1	0	8	7
TOTAL	33	20	27	18	30	32
Percentage (%)	37	28	30	26	33	46

3i. Comparison of questionnaire and interview results

The results (see summary on Figure 6.16) of the two sets of instruments leave no doubts about the strength of their relationship as the results were alike in many respects. Between mainstream provision (without and with support) and segregation, it was found that the trained were more positive to educating children with SEN in the mainstream than the untrained. But the untrained were more favourable of segregation than the trained. A difference was observed in the results of mainstream with support option. In the interview results, a relatively greater proportion of the trained reported they needed support to teach the child. But in the results of the questionnaire data, they were almost the same.

In summary, in both the questionnaire and interview results, the trained were more positive to educating children with SEN in the mainstream than the untrained. But the untrained were more supportive of segregation than the trained.

Figure 6.16: Teachers' preference of educational provision for children with SEN by trained and untrained: comparison of questionnaire and interview results



4. Measuring teachers' preference of educational provisions for children with SEN on the basis of length of teachers' teaching experience

The statistics of the age ranges were as follows (refer to Table 6.30):

a.	Less than 1 year	2
b.	1-3 years	2
c.	4-6 years	2
d.	7-9 years	3
e.	10 years or more	7

It appeared length of teaching experience had no influence on teaching children with SEN in the mainstream provision (without and with support) or segregated environment (see the summary of Table 6.35 and Figure 6.17). It was difficult determining trend for while more than two thirds of the 3 years or less favoured the mainstream provision, an almost equal number of those with 10 or more years were in support. It was found that 65% of those with less than 1 year of teaching experience and 75% of those with 1-3 years experience supported mainstream. But the number was 40% for those with 4-6 years, 57% for the 7-9 years and 64% for the 10 years or more defeating any argument pointing to the 3 or less years of experience being more supportive of mainstream provision.

When there is support in mainstream, it was found that no distinction was found between the less than 1year (25%), for instance, and 4-6 years (25%). While there was a drop in the 7-9 years (10%), a rise was noticed in the 10 years or more (33%). Similarly, while 35% of the Less than 1 year and 25% of the 1-3 years favoured segregation, the number rose sharply for those with 4-6 years and gradually descended as the length of years of teaching experience increased.

Figure 6.17: Showing preference of educational provision for children with SEN on the basis of length of teachers' teaching experience. (N=16)

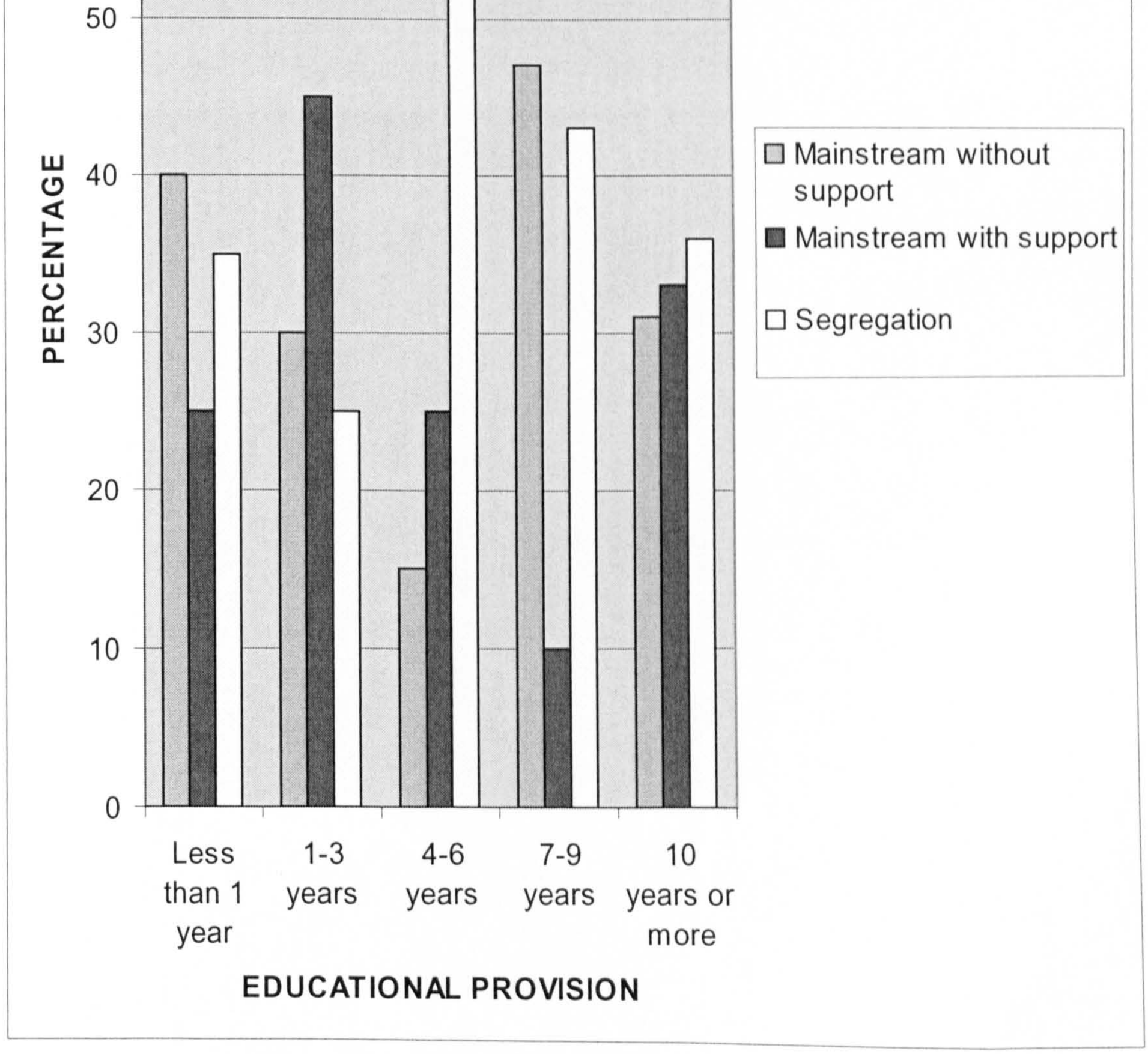


Table 6.35: Summary of interview scores of teachers on preference of educational provision for children with SEN on the basis of length of teachers' teaching experience (N=16)

	Mainstream without support					Mainstream with support					Segregation					
10 SEN CATEGORIES	**Less than 1 year**	**1-3 years**	**4-6 years**	**7-9 years**	**10 years or more**	**Less than 1 year**	**1-3 years**	**4-6 years**	**7-9 years**	**10 years or more**	**Less than 1 year**	**1-3 years**	**4-6 years**	**7-9 years**	**10 years or more**	**Total**
Mild to mod int. diff	1	2	1	1	0	1	0	1	1	6	0	0	0	1	1	16
Emot. and beh. diff	1	1	0	2	4	1	1	0	0	1	0	0	2	1	2	16
Physical disorders	0	0	0	2	2	1	2	1	0	3	1	0	1	1	2	16
Health disorders	1	1	0	2	3	1	1	0	0	3	0	0	2	1	1	16
Hard-of-hearing	1	1	1	1	2	1	1	1	0	2	0	0	0	2	3	16
Low vision	2	0	1	3	5	0	1	1	0	2	0	1	0	0	0	16
Speech & lang. diff.	1	1	0	1	4	0	1	0	1	2	1	0	2	1	1	16
Sev. to prof. int. diff.	1	0	0	2	2	0	2	1	1	2	1	0	1	0	3	16
Deafness	0	0	0	0	0	0	0	0	0	1	2	2	2	3	6	16
Blindness	0	0	0	0	0	0	0	0	0	1	2	2	2	3	6	16
Total	8	6	3	14	22	5	9	5	3	23	7	5	12	13	25	160
Percentage	40	30	15	47	31	25	45	25	10	33	35	25	60	43	36	

4i. Comparing results of questionnaire and interview data

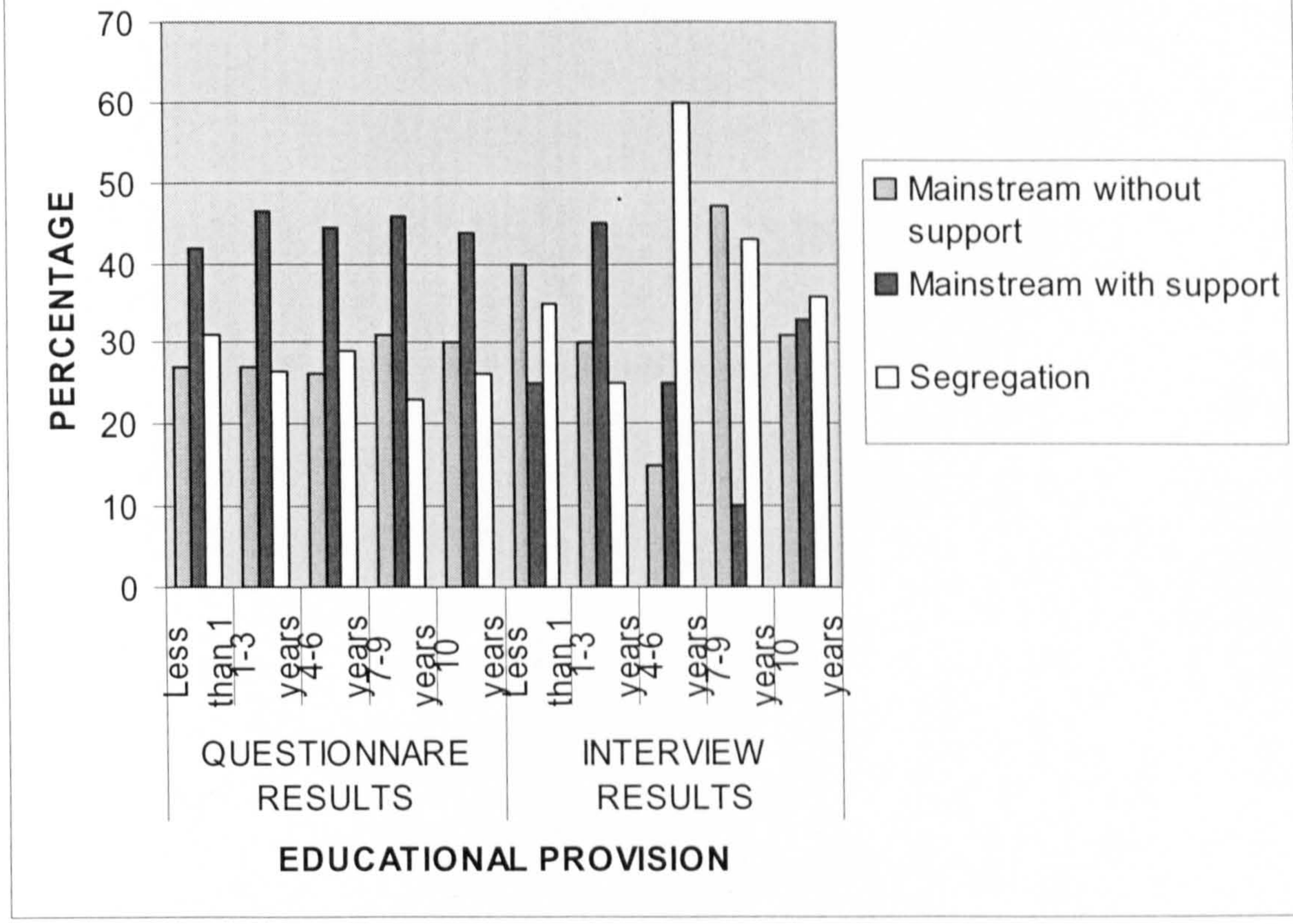
Some differences were observed in the two results. Teachers' percentage scores in the questionnaire results were quite comparable since in the three educational provisions, the scores were relatively similar. However, this observation could not be said about the results of the interview (see summary on Table 6.36 and Figure 6.18). In the questionnaire results, teachers were more supportive of the mainstream with support than they were in the interview data. But more teachers supported segregation in the interview results than they did in the questionnaire instrument. For example, in the questionnaire results, less than a third of the 4-6 years supported segregation, but nearly two-thirds did so in the results of the interview. Again, in the interview results, teachers with 7-9 years of teaching experience who supported segregation was 43%, but it was 23% in the results of the questionnaire. It was also found that with increasing length of teaching experience, from 4-6 years, there was a reduction in support of segregation in the interview results, but this was not the case with the questionnaire results.

In summary, support for segregation seemed to be greater in the interview results than it was in the questionnaire.

Table 6.36: Comparison of questionnaire and interview results for teachers on preference of educational provision for children with SEN on the basis of length of teaching experience

Educational provision	Questionnaire data					Interview data				
	Less than 1 year	1-3 years	4-6 years	7-9 years	10 years or more	Less than 1 year	1-3 years	4-6 years	7-9 years	10 years or more
Mainstream without support	27	27	26	31	30	40	30	15	47	31
Mainstream with support	42	46.5	44.5	46	44	25	45	25	10	33
Segregation	31	26.5	29	23	26	35	25	60	43	36
Total	100	100	100	100	100	100	100	100	100	100

Figure 6.18: Teachers' preference of educational provision for children with SEN on the basis of length of teaching experience: comparing questionnaire and interview results



5. Measuring teachers' preference of educational provisions for children with SEN by region

This section is devoted to analysis of teachers' choice of educational provisions in the three regions. Using the sample ratio of 6, 5, and 5 for the Northern, Ashanti and Central Regions, respectively, percentages were calculated for information on differences between the regions. Differences were observed in the teachers' attitudes in the three regions (see summary on Table 6.37 and Figure 6.19). Between mainstream and segregation, Ashanti Region was the most supportive of mainstream (72%) followed by the Central Region (68%). In the Northern Region, less than half of the teachers (47%) supported mainstream. But in the area of segregation, the Northern Region was the most supportive. More than 50% of the teachers in the Northern Region favoured segregation.

Figure 6.19: Teachers' preference of educational provision by region (N=16)

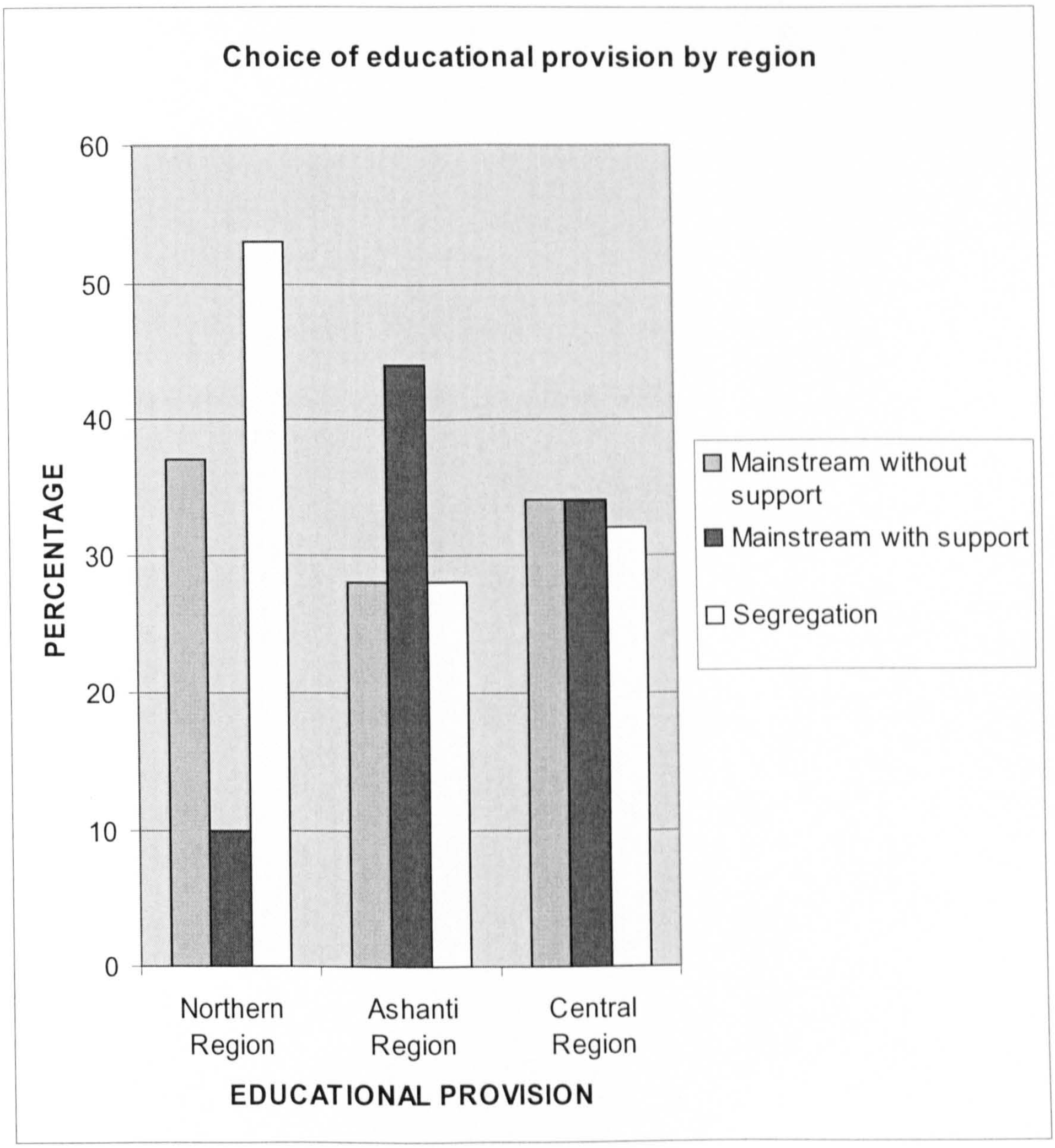


Table 6.37: Summary of interview scores of teachers on preference of educational provision for children with SEN by region (N=16)

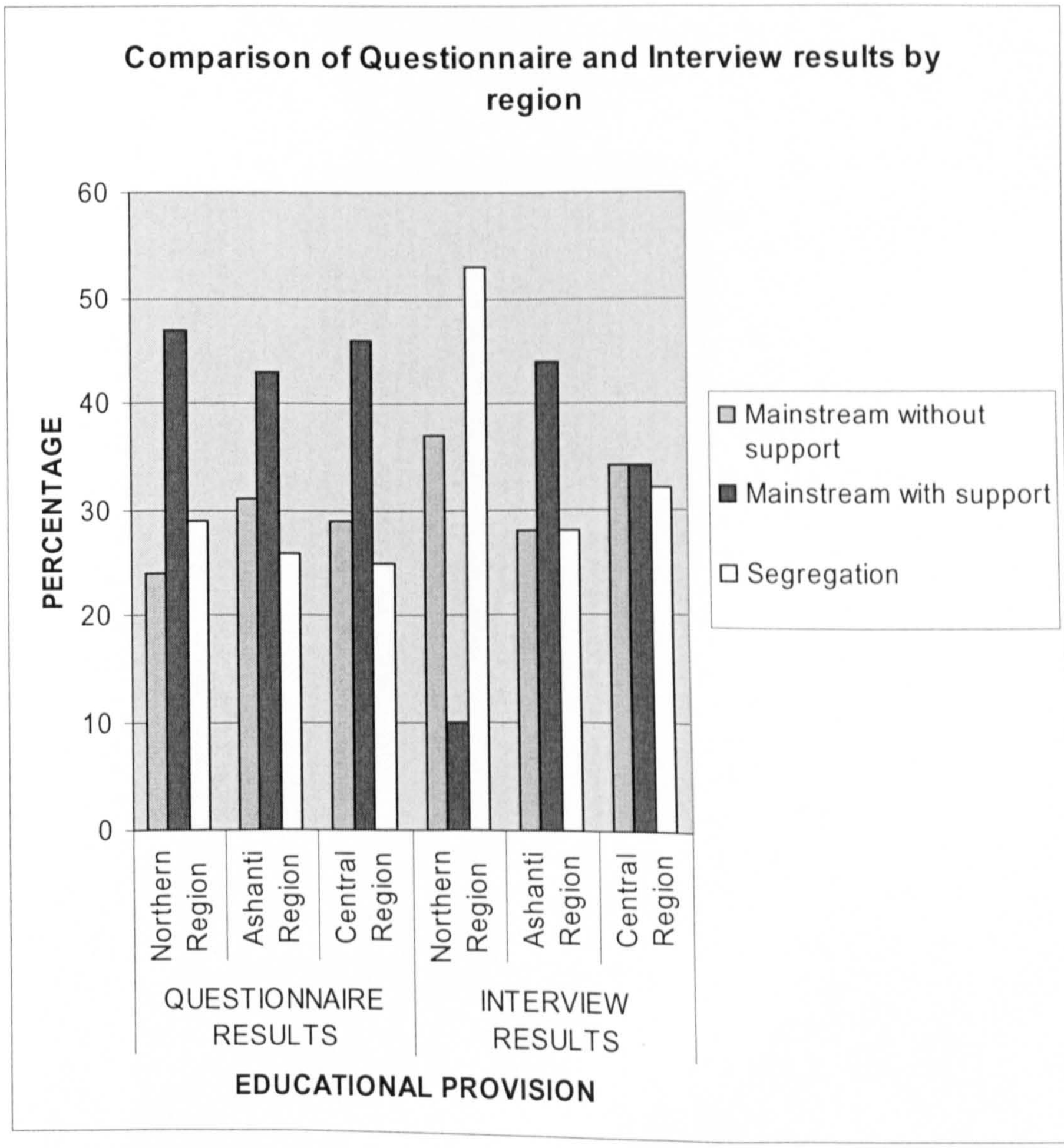
TEN (10) SEN CAT	MAINSTREAM WITHOUT SUPPORT			MAINSTREAM WITH SUPPORT			SEGREGATION		
	NORTHER REGION	ASHANTI REGION	CENTRAL REGION	NORTHER REGION	ASHANTI REGION	CENTRAL REGION	NORTHER REGION	ASHANTI REGION	CENTRAL REGION
Mild to moderate intell dif	2	1	2	2	4	3	2	0	0
Emotional and behavioural	3	2	3	0	2	1	3	1	1
Physical disorders.	0	2	2	2	3	2	4	0	1
Health disorders	4	2	1	0	2	3	2	1	1
Hard-of-hearing	3	1	2	0	3	2	3	1	1
Low vision	5	3	3	1	2	1	0	0	1
Speech and lang difficulties	4	1	2	0	2	2	2	2	1
Severe to profound intellectual difficulties	1	2	2	1	2	3	4	1	0
Deafness	0	0	0	0	1	0	6	4	5
Blindness	0	0	0	0	1	0	6	4	5
Total	22	14	17	6	22	17	32	14	16
Percentage (%)	37	28	23	10	44	34	53	28	32

5i. Comparing results of questionnaire and interview data by region

In the two sets of data (see the summary on Figure 6.20) it was found that the Northern Region was the most supportive of segregation. Between mainstream (including support) not much difference was noticed in the results of the Ashanti and Central Regions. However, a difference was found in the results of the Northern Region. They were supportive of mainstream in the questionnaire results but not in interview.

In summary, teachers in the Ashanti and Central Regions supported the mainstream, but those in the Northern Region of the country appeared to show the most support to segregating children with SEN.

Figure 6.20: Teachers' preference of educational provision for children with SEN: comparing questionnaire and interview results



6. Measuring teachers' preference of educational provisions for children with SEN by level of urbanisation

This section looks at how teachers in urban, semi-urban and rural settings of the three regions responded to the choice of educational provisions for children with SEN. For each of the settings, there were two (2) teachers except Ashanti and Central urban where there was one (1) each. In the three regions, teachers in the semi-urban area were found to be the most supportive of mainstream {see summary of results on Tables 6.38 (a, b, and c) and Figure 6.21}. Put together, in the Northern Region they formed 60%; Ashanti Region, 85% and Central Region, 80%. Those in rural setting followed with aggregate scores of 45% for Northern Region; 70% for Ashanti Region; and 70%, Central Region. Teachers in urban area were the least supportive of mainstreaming. Further, the results showed that teachers in urban area in the three regions were the most supportive of segregation.

Figure 6.21: Teachers' preference of educational provision by level of urbanisation

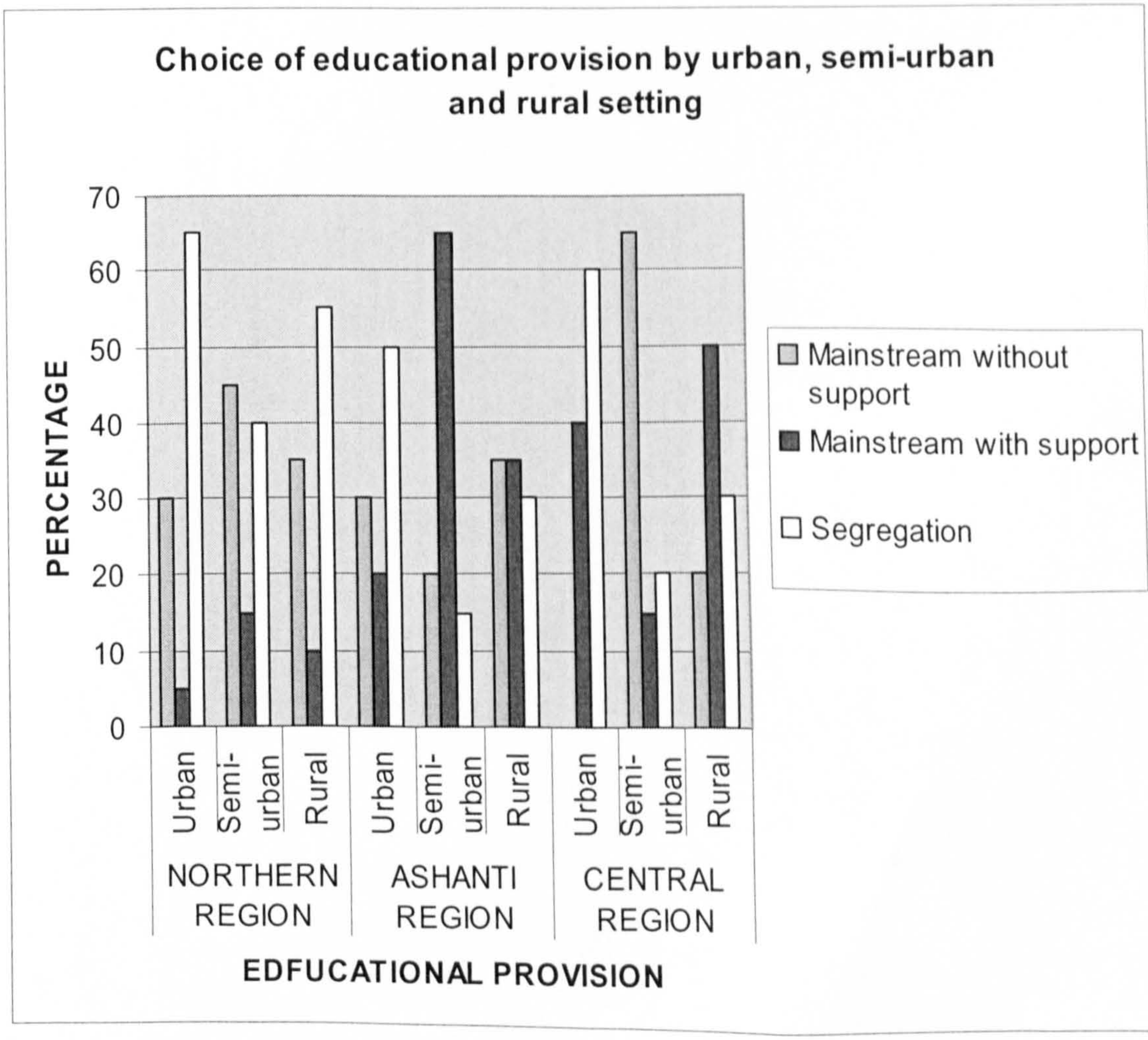


Table 6.38a: Summary of interview scores of teachers on preference of educational provision for children with SEN by level of urbanisation (N=16)

TEN (10) SEN CAT	MAINSTREAM WITHOUT SUPPORT								
	NORTHERN REGION			ASHANTI REGION			CENTRAL REGION		
	URBAN	SEMI-URBAN	RURAL	URBAN	SEMI-URBAN	RURAL	URBAN	SEMI-URBAN	RURAL
Mild to moderate intell dif	1	1	0	0	1	0	0	1	1
Emotional and behavioural	0	2	1	0	1	1	0	2	1
Physical disorders.	0	0	0	1	0	1	0	2	0
Health disorders	1	1	2	1	0	1	0	1	0
Hard-of-hearing	1	1	1	0	0	1	0	2	0
Low vision	2	1	2	1	1	1	0	2	1
Speech and lang difficulties	1	2	1	0	0	1	0	1	1
Severe to profound intellectual difficulties	0	1	0	0	1	1	0	2	0
Deafness	0	0	0	0	0	0	0	0	0
Blindness	0	0	0	0	0	0	0	0	0
Total for urban; semi-urban & rural	6	9	7	3	4	7	0	13	4
Percentage (%) for urban; semi-urban & rural	30	45	35	30	20	35	0	65	20

Table 6.38b Summary of interview scores of teachers on preference of educational provision for children with SEN by level of urbanisation (N=16)

TEN (10) SEN CAT	MAINSTREAM WITH SUPPORT								
	NORTHERN REGION			ASHANTI REGION			CENTRAL REGION		
	URBAN	SEMI-URBAN	RURAL	URBAN	SEMI-URBAN	RURAL	URBAN	SEMI-URBAN	RURAL
Mild to moderate intel. diff	0	0	2	1	1	2	1	1	1
Emot. and beh. difficulties.	0	0	0	0	1	1	0	0	1
Physical disorders.	1	1	0	0	2	1	0	0	2
Health disorders	0	0	0	0	2	0	0	1	2
Hard-of-hearing	0	0	0	0	2	1	1	0	1
Low vision	0	1	0	0	1	1	1	0	0
Speech & lang. difficulties.	0	0	0	0	1	1	0	1	1
Severe to profound int. diff.	0	1	0	1	1	0	1	0	2
Deafness	0	0	0	0	1	0	0	0	0
Blindness	0	0	0	0	1	0	0	0	0
Total	1	3	2	2	13	7	4	3	10
Percentage (%) urban; semi-urban & rural	05	15	10	20	65	35	40	15	50

Table 6.38c: Summary of interview scores of teachers on preference of educational provision for children with SEN by level of urbanisation (N=16)

TEN (10) SEN CAT	SEGREGATION								
	NORTHERN REGION			ASHANTI REGION			CENTRAL REGION		
	URBAN	SEMI-URBAN	RURAL	URBAN	SEMI-URBAN	RURAL	URBAN	SEMI-URBAN	RURAL
Mild to moderate intel. diff	1	1	0	0	0	0	0	0	0
Emo. and beh. difficulties	2	0	1	1	0	0	1	0	0
Physical disorders.	1	1	2	0	0	0	1	0	0
Health disorders	1	1	0	0	0	1	1	0	0
Hard-of-hearing	1	1	1	1	0	0	0	0	1
Low vision	0	0	0	0	0	0	0	0	1
Speech & lang. difficulties	1	0	1	1	1	0	1	0	0
Severe to profound int. diff.	2	0	2	0	0	1	0	0	0
Deafness	2	2	2	1	1	2	1	2	2
Blindness	2	2	2	1	1	2	1	2	2
Total for urban; semi-urban & rural	13	8	11	5	3	6	6	4	6
Percentage (%) for urban; semi-urban & rural	65	40	55	50	15	30	60	20	30

6i: Comparison of questionnaire and interview results on teachers' preference of educational provision for children with SEN by level of urbanisation

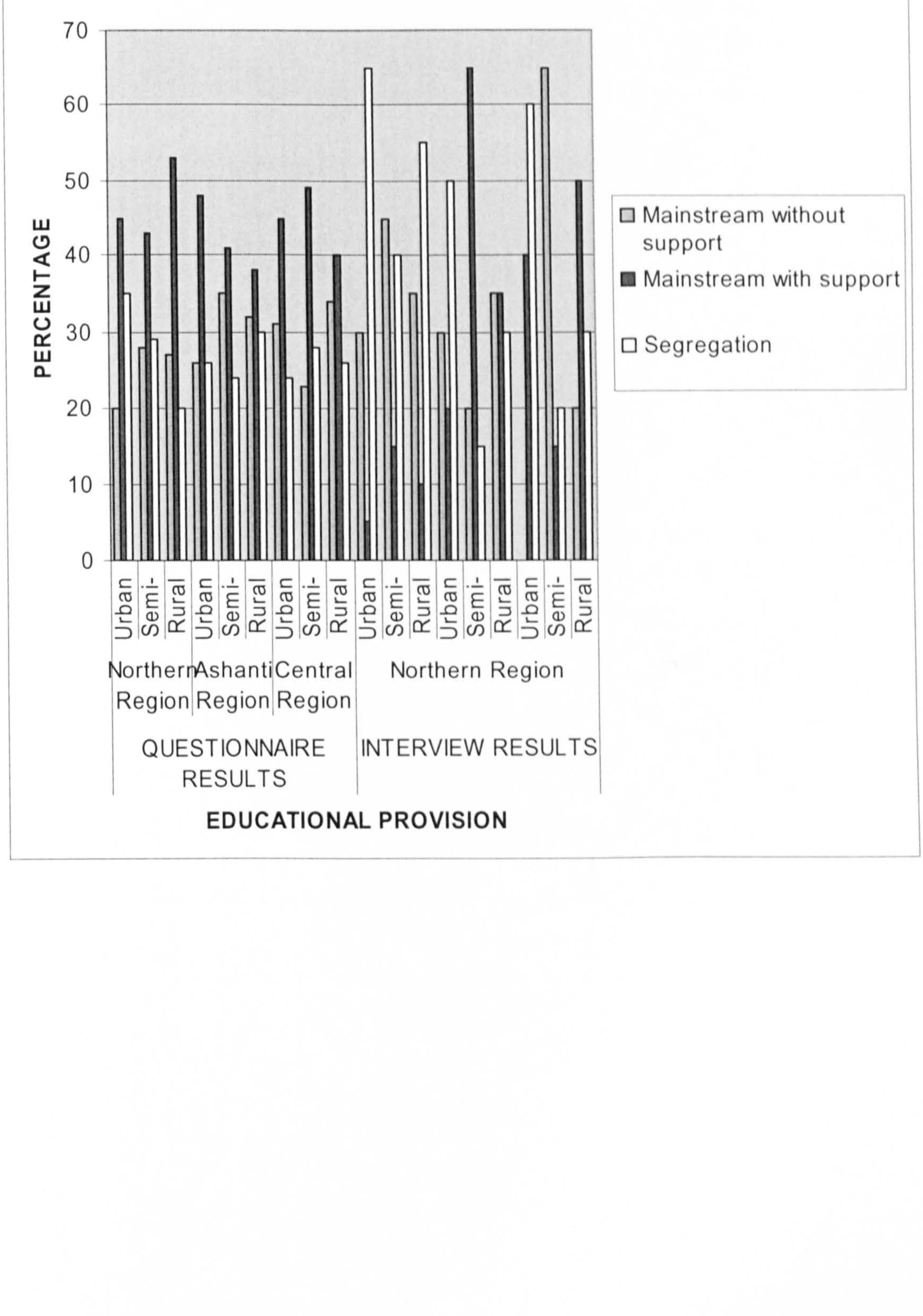
The results of Table 6.39 and Figure 6.22 show that in the interview data teachers in semi-urban setting were the most supportive of mainstream followed by those in rural. The urban teachers were the least supportive of mainstream. This was the general pattern. In the questionnaire, results, this pattern was not noticed. Whereas in the Ashanti Region the order was semi-urban, urban and rural, in the Northern Region, the rural was the most supportive followed by semi-urban and least urban. It was the results of the Northern Region that came closer to pattern shown on the results of the interview. In the Central Region, it was the urban that was the most in favour followed by the semi-urban and rural was least.

In summary, teachers in the urban setting or area were the least supportive of mainstreaming children with SEN. Those in the semi-urban urban setting were the most in favour of mainstream.

Table 6.39: Comparison of questionnaire and interview results of teachers by level of urbanisation (urban, semi urban and rural)

EDUCATIONAL PROVISION	QUESTIONNAIRE RESULTS									INTERVIEW RESULTS								
	NORTHERN REGION			ASHANTI REGION			CENTRAL REGION			NORTHERN REGION			ASHANTI REGION			CENTRAL REGION		
	Urban	Sem-urb	Rural	Urban	Sem-urb	Rural	Urban	Sem-urb	Rural	Urban	Sem-urb	Rural	Urban	Sem-urb	Rural	Urban	Sem-urb	Rural
Mainstream without support	20	28	27	26	35	32	31	23	34	30	45	35	30	20	35	0	65	20
Mainstream with support	45	43	53	48	41	38	45	49	40	5	15	10	20	65	35	40	15	50
Segregation	35	29	20	26	24	30	24	28	26	65	40	55	50	15	30	60	20	30
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Figure 6.22: Teachers' preference of educational provision for children with SEN by level of urbanisation: comparing questionnaire and interview results



CHAPTER SEVEN

THEMATIC MODEL OF TEACHER ATTITUDES TO INCLUSION

Introduction

The chapter is concerned with a discussion of the findings on teachers' attitudes to inclusion in Ghana. In taking a critical look at this investigation, three main themes emerge from the results to explain teachers' attitudes to inclusion. These are child characteristics, teacher characteristics and organisational factors. A thematic model (see Figure 7.1) which can be both analytic and predictive is used to explain the themes and also to provide a means that could lead to action to promote positive teacher attitudes to inclusion. First, the thematic model is described. This is followed by a discussion of the themes in relation to previously reported findings in literature and current findings from Ghana.

Description of thematic model on teacher attitudes to inclusion

As the Figure 7.1 shows, teacher attitudes (in bright green colour) are affected by three mutually interacting phenomena namely child characteristics, teacher characteristics and organisational factors (in yellow colour). Each of the three has sub-components (in light turquoise colour).

1. Child characteristics affecting teachers' attitudes to inclusion

In the model (see Figure 7.1) there are three sub-components of child characteristics. These are:

- Type of SEN. The type is concerned with the category. This may be intellectual difficulty, emotional and behavioural difficulties, physical and health or sensory disabilities such as deafness and blindness.
- Nature of SEN. The nature has to do with the form of SEN. For instance, is it in a form that affects child's intellectual abilities making learning easy or difficult; does it make child's behaviour maladaptive to call for multi-disciplinary or team intervention? The type of intervention and choice of

educational or school placement may be dependent on the form of a child's disability.

- The degree of SEN. The degree is concerned primarily with whether the disability is mild, moderate, severe or profound. The type of services is dependent on the degree of SEN.

2. Teacher characteristics affecting attitudes to inclusion

Teacher characteristics incorporate five sub-components. These are:

- Gender of teacher: This is concerned with whether the teacher is male or female. One's gender may or may not affect attitude to SEN.
- Age of teacher. This has to do with how old the teacher is. If a teacher is young it seems likely that they can be positively influenced by innovations in the education system. Older teachers may appear conservative but they too can be helped to develop positive attitude through in-service activities, seminars, conferences and readings.
- Type of training or qualification. Teachers may bring into the teaching and learning environment various forms of qualification. In the Ghanaian educational system, these may range from Basic Education Certificate Examination (BECE), West African Senior Secondary School Certificate Examination (WASSSCE) (since 2006), A 4 year, A 3 year; Post Graduate Diploma in Education (PGDE), Diploma in Education., or degree in Education. These may all be necessary, but it is stressed that content quality is germane.
- Length and level of teaching experience. In Ghana, most teachers begin their professional career at age 21 and retire at age 60. Length of teaching experience connotes the number of years a teacher has taught. Level of experience refers to whether a teacher has taught or not taught children with SEN. In both cases the expertise available appears to be cardinal. This calls for staff development in the form of workshops, seminars, pre-and in-service training, conferences, and short courses abroad or local. Teachers need to develop interest in reading and be abreast with research on SEN.
- Teacher knowledge of SEN. Knowledge gained through training; mass media and personal experience have a big role to play in meeting the needs of children with SEN. It appears the more the knowledge, the better the accommodation.

3. Organisational factors affecting teachers' attitudes to inclusion

In the thematic model (see Figure 7.1) organisational factors are made up of two sub-components. The first consists of Regional, Community and School factors. The second is composed of Type of support services available. (It must be noted that both are influenced by socio-political factors / rules).

Regional, Community and School factors (as function of socio-political factors / rules)

- Location of School: This has to do with where a school is located. A school may be located in the rural, semi-urban or urban area. It is usually found that most schools in the urban centres are better resourced in terms of teaching and learning materials than those in semi-urban or rural areas. However, large class sizes may impact positively or negatively on teachers' attitudes to inclusion.
- Teacher education and training. In this sub-aspect consideration is given to National Curriculum and provisions made for teacher training. The philosophy behind this is that teachers' attitudes to inclusion would be positive if they have knowledge and information on how to deal with SEN. Thus, in planning for inclusion, governments and institutions should devote time and money to develop staff capacity. There should be provision made for short courses, conferences, workshops, seminars, pre-service and in-service programmes. Teachers should have opportunity to interact and share their experiences and expertise and to celebrate success stories.
- Community support. This is concerned with the type of support schools receive from their communities and the interaction that exists between teachers and community members. Parental participation, for instance, can ensure that parents and guardians become partners in SEN education.
- School factors / organisation: This is concerned with school procedures such as disciplinary measures, school philosophy or ethos, classroom routine, monitoring students' attendance and progress.

Type of support services (as function of Socio-political factors / rules)

- Regular and special teacher collaboration: This deals with the situation where both regular and special education teachers teach side by side in the same classroom. This type of collaboration may ease the stress regular education

teachers experience in teaching the child with SEN alone. More important, the child with SEN remains permanently in the classroom.

- Consultation. It refers to the situation where the regular education teacher seeks information on instructional strategies either from peers within the school or experts outside the school to teach the child with SEN and disabilities. The child is not removed from the classroom.
- Resource room service. It is a form of pull-out service for the child. During certain times of the day, the child is taken out from the classroom to a resource room to receive instruction from a specialist.
- Funding. Educating children with SEN can be seriously affected without sufficient funding. Through funding educational resources can be procured and teacher training needs met. Inclusion is likely to fail without funding.
- Educational resources. These include teaching and learning resources which should be available in sufficient quantities. Teachers are expected not only to accept the child with SEN in the classroom, but also to plan for their achievements. This process can be facilitated when resources are available.
- Inter-agency co-operation and collaboration. This part is concerned with getting other agencies such as Education, Health, and Social services to collaborate in meeting the needs of children with SEN. The classroom teacher alone cannot meet the needs of a child with SEN. Inter-agency support is imperative. A designated medical practitioner or a school nurse would provide information on health, medication and diet. Social services would liaise between homes and schools to meet children's social needs.
- National policies and regulations. Central government policies and regulations are helpful in defining how inclusion should be carried out. Policies should provide information on issues related to funding and support; guidance on legislation, assessment procedures; discrimination practices and how they can be addressed.

In this model, teacher attitudes are affected by a unique and dynamic interaction between the child, teacher and organisational factors. It is unique in the sense that they are individually distinctive in character to warrant special attention. The relationship is dynamic for action is needed from government and communities and schools to make them functional. They can be considered from a systemic perspective

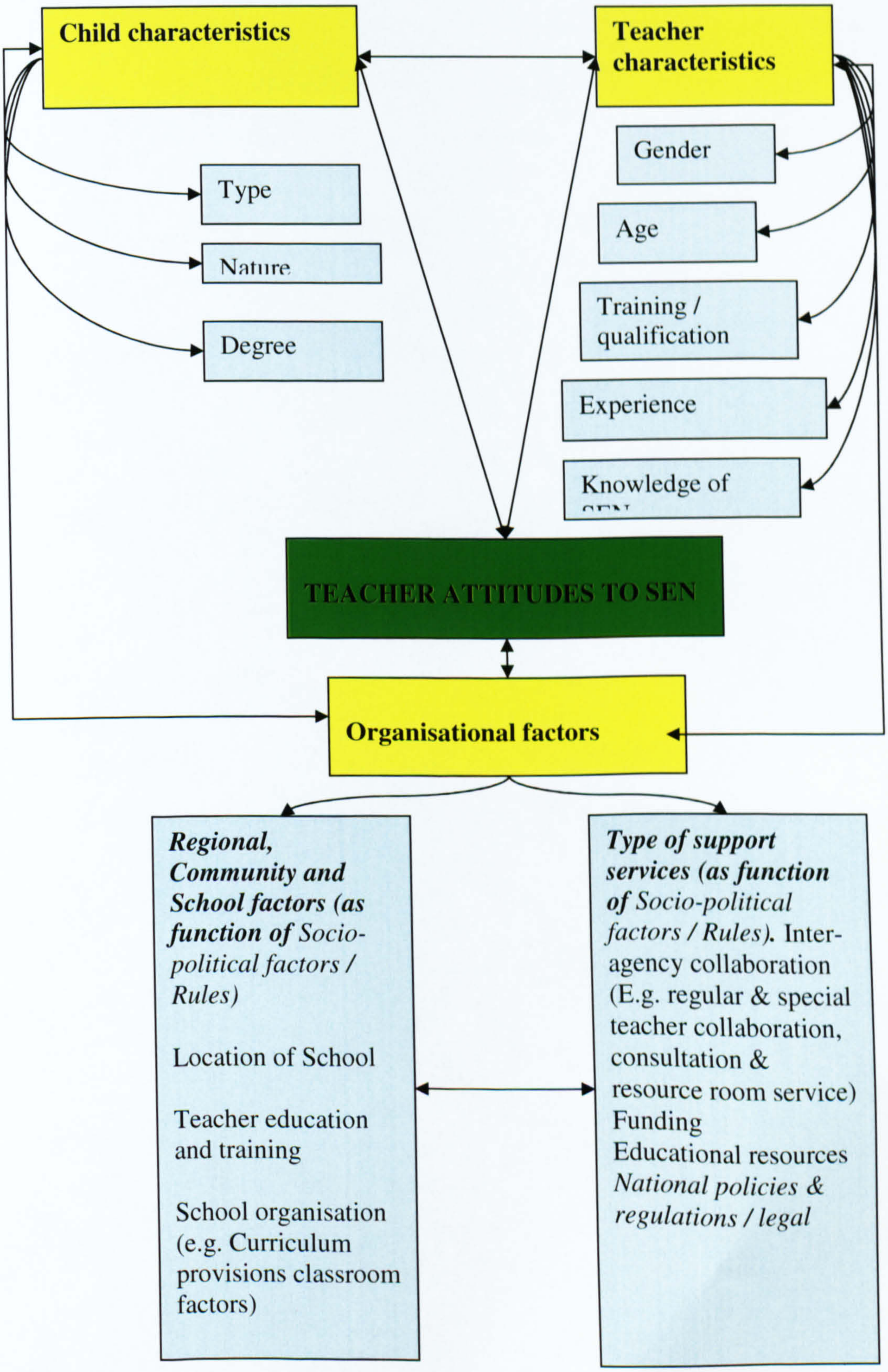
(Mitchell, 2005) as one cannot exist or function without the others. The model can be used analytically to examine teachers' attitudes to inclusion. It therefore opens a new area of research for purposes of identifying further dimensions and most important enriching Bronfenbrenner's (1989) ecological or systemic model in which many environmental forces interact with the child (Sugden and Chambers, 2005, p.196; Kirk et al, 2000). Sugden and Chambers (2005) affirmed the inseparable relationship existing between the development of the child and the environment and suggested that any intervention process must take this into consideration.

The implication of this model is that teachers do consider their personal characteristics (teacher characteristics) in relation to the type, nature and degree of SEN and disabilities (child's characteristics) and support systems (organisational factors) available to develop positive attitudes to inclusion. Child's characteristics provide information on the type of teacher training needs (teacher characteristics) and the type of support services (organisational factors) that would be required in meeting the child's needs. Organisational factors such as services and facilities put in place in communities and schools as well as educational policies and regulations affect how teachers would respond to children's SEN and disabilities and how these children can be helped to develop their potentialities. Though not separately analysed, the answers interviewees provided on why they would prefer certain types of educational provisions to others suggested that a lot more would be required to include children with SEN and disabilities. Thus, in the support services sub-component, teacher education and training; funding, educational resources and national policies and regulations come up. But as can be seen in the model, national policies and regulations (italicised) comes last. This is so because if teachers are well trained and have the right type of resources, with sufficient funding they can do a lot in including children with SEN and disabilities since SEN policies by themselves do not lead to inclusion.

As was indicated, the model can be used basically in two ways; first, as analytic and second, as predictive for information about teachers' attitudes to inclusion. It is analytic in that in dealing with the subject matter of teachers' attitudes to inclusion, various factors come into play. These are child and teacher characteristics and organisational factors which must be analysed to identify how teachers' preferences of educational provisions for different ranges of children with SEN and disabilities are influenced. It is predictive insofar as the variables help to predict how

teachers would respond to including children with SEN and disabilities in the mainstream.

Figure 7.1: Thematic model of teacher attitudes to inclusion



Child characteristics affecting teachers' attitudes to inclusion

In discussing the theme on child characteristics, three sub-components are considered based on the research questions and findings of the investigation. These are: type of SEN; nature of SEN; and degree of SEN.

Type of SEN and attitudes to inclusion

There have been debates about teachers' including children with SEN and disabilities in the mainstream. Esposito (Esposito http://www.integrativepsychology.org/articles/vol4_article3.htm) points out that previous research findings on teacher attitudes failed to substantiate empirically that general educators hold more positive attitudes about inclusion than negative ones. However, increasingly, literature is supporting the view that teachers are holding more positive views than negative ones (Vaughn et al, 1996; Scruggs and Mastropieri, 1996; and Soodak, Podell, and Lehman, 1996).

The results on Tables 6.8 and 6.21 in the current investigation showed that teachers were generally positive towards the inclusion of a majority of children with different types of SEN in the mainstream. The teachers were positive about mainstreaming the mild to moderate intellectual difficulties, emotional and behavioural difficulties, physical and health disorders, low vision and speech and language difficulties. Additionally, in examining teachers' emotional reaction in teaching children with SEN, this investigation showed in Box 6.1 and on Table 6.21 that teachers were positive about mainstreaming the six listed categories. To a large extent then the current finding supports previous research findings which indicate that teachers hold more positive attitudes on inclusion than negative ones (McLeskey et al, 2001). Previous research findings from Ghana found that teachers held negative attitudes to mainstreaming children with SEN (Okyere, 2003; Avoke, 2001). Perhaps for this reason, the blue print of the Ministry of Education Policies and Strategic Plans for the Education Sector of Ghana (MEPSPESG) in the curriculum policy, took into account, the need not to make excessive demands on teachers relative to their circumstances. On the basis of this finding, it appears a rethinking is necessary since teachers in the country appear to be positively disposed to including children with SEN and disabilities in their classrooms.

But the argument that teachers are positive to including children with SEN and disabilities should be interpreted with care for the teachers did not make a choice for

the inclusion of all children with SEN and disabilities. Some authorities have argued that not all pupils with SEN and disabilities benefit from the positive effects of mainstreaming. Some do better in special education others experience problems in reading when placed in inclusive settings (Klingner et al, 1998). O'Donoghue and Chalmers (2000), for example, found teachers to do selective adaptation when confronted with the task of teaching children with severe or profound disabilities. Madden and Slavin (1983) indicated that children with serious problems might not be suitable for inclusion. Thus, there seems to be an argument for targeting children with mild to moderate SEN for inclusion. Peetsma et al (2001) argue that inclusion policy ought to target children with 'mild academic handicaps' or 'moderate special needs' (p. 126). These arguments may mean that the possibility is there for teachers to reject some children with SEN for inclusion if teachers think they may not be able to meet their needs in the regular settings.

Many studies including contemporary ones report that children with emotional and behavioural difficulties are seen as causing the most concern for teachers in the mainstream (Avramidis et al, 2000; Clough and Lindsay, 1991). The Audit Commission (2002), for example, reported that pupils with emotional and behavioural difficulties are far more likely to be permanently excluded from schools in England. Apart from poor academic achievements, the research literature indicates that they pose management problems for teachers (Coie, 1996). Most interventions have relied on behavioural principles such as the use of reinforcement, cognitive behavioural models that enjoin the individual to reflect on his behaviour (Davis and Florian, 2004), psychodynamic model that uses psychotherapy, and biomedical model that emphasises the use of medicine or diet.

Though the findings of the current investigation supported previous findings that teachers would exclude some children with SEN, there was lack of consistency on the type of SEN teachers would exclude from the mainstream. Unlike the popular view that children with emotional and behavioural difficulties were teachers' greatest concern, in Ghana, children with severe to profound intellectual difficulties, hard-of-hearing, deafness and blindness were seen to be teachers' greatest concern. In attempting to find out why Ghanaian teachers would not segregate children with emotional and behavioural difficulties, there appeared to be some cultural undertones. Ghana was one of the first countries in the world to ratify the Convention on the Rights of the child. Yet, low literacy rate in the country, coupled with lack of enforcement of

the rights of children leave children to the whims of teachers. In most schools in the country, teachers continue to use punishment (including corporal ones, suspension and outright dismissals) to correct behaviours considered as maladaptive without considering the effects it would have on the child.

At the time of collecting data for this study, there were a number of schools (in the study areas) I personally witnessed teachers punishing children for either coming to school late or not behaving appropriately in the classroom. It appeared the teachers were absolute monarchs in the classroom and their subjects (children) were compelled to submit to their disciplinary measures. This was without prejudice to the Ministry of Education, Youth and Sports banning corporal punishment in schools in the country. There is huge ethical debate surrounding the use of punishment. As a behavioural technique, punishment is used to extinguish or weaken behaviour (Bee and Boyd, 2004). But the use of punishment appears to be debatable, some support others do not. In the Metro newspaper of Tuesday, August 22, 2006 a news item appeared with the heading: Courts have 'too many children'. It was reported that:

> Too many children are appearing before courts because teachers are afraid to discipline them, the Government's Youth Justice Board has warned. Less respect among parents for the authority of teachers is to blame, as well as fear of legal action if they try to deal with unruly youngsters (p. 2).

However, there is evidence from research literature that punishment does not always do what it is intended to do and sometimes produces negative consequences (Rayner, Joyce, Rose, Twyman and Clulow, 2005; Bee and Boyd, 2004; Mussen, Conger, Kagen, and Huston, 1984). Punishment may be conceived as abuse of power, harmful, breeds hostility and does not convey to the punished what should not be done. Punishment causes some form of deprivation for the person being punished (Stanford Encyclopedia of Philosophy http://plato.stanford.edu/entries/punishment/#2). Consequently, Bee and Boyd opine that 'for punishment to be effective, it must be defined in terms of its effect on behaviour' (p. 19). Punishment should not be encouraged for as Smith, Cowie and Blades (2003) have rightly argued home circumstances affect child's behaviour at school. The rights of children must be respected. Hence, there is urgent need for the education authorities in the country to step up education on the rights of children and stop teachers from using punishment to correct children's emotional and behavioural difficulties.

The significance of this finding is underscored by the fact that there are some categories of children with SEN who teachers may find it difficult to include in mainstream activities whether there are SEN policies or no policies, resources or no resources. The teachers mostly identified the blind and deaf in particular and in some way the hard-of-hearing and severe to profound intellectual difficulties categories as the most difficult to include (see summary on Table 6.8). It appeared they were particularly not ready to accept the children with sensory impairments especially the deaf and blind for mainstreaming. The reasons for this are apparent. Kirk et al (2000) indicated that children with deafness 'do not develop literacy skills commensurate with their intelligence' (p. 355). They usually have communication problems, social and behavioural difficulties. Ofsted found that visually children require either adaptations to the environment and/or physical support through the provision of vision aids and additional learning support to be able to access the curriculum. Ofsted further identified children with severe to profound intellectual difficulties to have significant global delay. The list of difficulties include conditions such as mobility and co-ordination difficulties, communication difficulties and challenging behaviour to make it difficult to access the curriculum. And for children with profound intellectual difficulties, they require a one-to-one support daily, a task the regular teacher may see as cumbersome.

Significantly, the summary on Box 6.1 showed teachers' emotional reaction was negative towards the deaf and blind, hard-of-hearing and severe to profound intellectual difficulties. It therefore means that previous findings on teachers' negative attitude to SEN could be linked to these categories. If teachers have to teach with some form of stress such as state of anxiety (Travers and Cooper, 1994) and worry, it is likely to have negative consequences not only on them as implementers of inclusion policy, but also the children in their care.

Fear of failure to meet the needs of children with sensory difficulties and severe to profound intellectual difficulties in regular schools may be an underlying reason why they would not want to mainstream them. This may probably be due to inexperience arising from teachers' lack of knowledge and information about the methods to use in meeting needs or some underlying stereotypes. Vaughn et al (1996) and McLeskey et al (2001) note that teachers' negative attitudes may be the result of their inexperience in teaching children with SEN. Looking at Ghana's situation, Mawutor and Hayford (2000) report in ISEC 2000 that of a teacher population of 268

selected for a study at the Winneba District of Ghana, only a few had some knowledge in special education principles and methodologies (Mawutor and Hayford, ISEC 2000 http://www.isec2000.org.uk/abstracts/papers_m/mawutor_1.htm)).

In the conceptual framework, the point was made that in Ajzen's (1988) theory of planned behaviour, individuals rate perceived behavioural control high if it is easy to perform, but low if difficult. Ajzen (1988) maintains that the degree of belief in one's ability to perform a particular behaviour (*perceived* behavioural control) affects intentions regarding that behaviour and also the degree of actual behavioural control affects one's ability to behave as intended. The theory of planned behaviour might therefore be confirmed in this investigation. Not being able to teach them may probably account for why teachers think the children belong elsewhere. But Kirk et al (2000) found that only 1 per cent of the population of the deaf are unable to perceive and understand speech under any conditions. The hard-of-hearing, for instance, are capable of perceiving and understanding speech with or without the use of hearing aids (Moores, 1987, cited in Ysseldyke and Algozzine, 1995, p. 385). Schildroth and Hotto (1995) indicated that in the US about 70 per cent of the deaf attend local public schools. It therefore implies that children with severe conditions could be enrolled in the mainstream. But if this can be possible, then training and education would be required for teachers to develop positive attitude towards the deaf, blind, severe to profound intellectual difficulties and hard-of hearing (Vaidya and Zaslavsky, 2000) and to implement inclusion successfully.

If mainstream of all children with SEN could be efficiently met, then collaboration between Special Education Division (SpED) and the Ghana Education Service (GES) is needed. A case in point is meeting the needs of children with speech and language difficulties in the mainstream or catering for those children who may have autistic spectrum disorder (ASD). Conti-Ramsden and Windfuhr (2002) pointed out that children with speech and language difficulties could do well in the mainstream and be able to access the curriculum but with additional support mechanisms. The involvement of speech and language therapist, for example, could help cater for speech and language disorders since they are more informed about the techniques. For those children with autism, their intellectual, communication, behavioural and social difficulties can be met if the teaching and learning environment is well structured. Jordan and Powell (1995, cited in Stakes and Hornsby, 2001, p. 27) highlighted the importance of good physical layout and a suitable framework for teaching through

systematic and structured activities. This collaboration ensures that regular education teachers benefit from the expertise of special education teachers. This is imperative for as Florian (2005) helpfully opined, the notion of inclusion challenges the idea of special education being separate from that which is provided for the majority of children. Florian (2005) further argued that despite educators' attempts to differentiate among types of learners and having a number of appealing models of teaching and learning, none has lived up to the promise. It therefore means that for inclusion to be practical human and material resources as well as knowledge and information, and most important, collaboration between regular and special education are necessary.

Nature and degree of SEN and teacher attitudes to inclusion

The review of Norwich and Lewis (2001) find no SEN-specific pedagogy and assumed that 'what works with most pupils also works for all pupils' (p. 324). This may imply that irrespective of a child's SEN (that is nature and degree of SEN) the same methodology could be used and that teachers need not be bothered about SEN children being in the mainstream. However, there is increasing evidence that some children with complex needs 'demand increasing levels of expertise' to reach optimum potential (Lewis and Norwich, 1999). Without this expertise, it appears the children with complex needs could be included, yet their needs may hardly be met. Lackaye (1997) reports that in the United States, the Council for Learning Disabilities, the National Joint Committee on Learning Disabilities as well as the Hearing Disability Association of America are against the inclusion of all children with SEN and disabilities. This will suggest that some children may need alternative instructional environments and teaching strategies which general education may not be able to provide (Lerner, 2000).

In the interview session teachers gave various reasons for their preference of special schools for children with SEN and disabilities. These included:

- 'Child cannot cope with mainstream work',
- 'No ordinary teacher can teach because not every teacher has the background',
- 'Child's needs can be well catered for in special school',
- 'You can't ignore the others by trying to explain things to the child with SEN',

- 'There is difficulty planning for child. If you don't understand the child, how then do you help the child'.
- 'I don't have idea about such a thing but I feel that the government should get a specialised school for such pupil',
- 'Special schools have the Braille machine', and
- Special School is more spacious 'there are more space in the school environment'.

These were real concerns the teachers expressed to show why they would not include children with complex needs or problems. These help explain the two theories of reasoned action (Fishbein and Ajzen, 1975) (see Figure 2.1) and planned behaviour (Ajzen, 1988) (see Figure 2.2). In the theory of reasoned action the point was made that the decision to engage in a particular behaviour results from a rational process that is goal-oriented and follows a logical sequence. The theory of planned behaviour represents the individual's perception of how easy or difficult it is to perform a particular behaviour. There was an indication that teachers were willing to include children as long as it is easy to do so. If the behaviour tends to be difficult, they are likely not to include them. In the above we find that teachers did not have the tools and competence to work with. If such situations exist, they are likely to impact negatively on teachers' attitudes to inclusion. The study of the Audit Commission (2002) reports the considerable pressure many teachers find themselves in their bid to respond to the individual needs of children with SEN and disabilities against the demand to live up to the National Curriculum and achieve ever-better results. The report notes particularly that many of the teachers feel ill-equipped for the task.

In their model which uses children's needs as basis to determine the way in which inclusion should be approached, Lewis and Norwich (1999) identify three types of needs namely:

- Needs that are common to all (for example, motivation);
- Needs that are common to some, but not others (for example, hearing impairment);
- Needs that are unique to an individual (for example, complex needs).

Cognizance was given to the fact that the first type of needs can be met by all teachers. However, the subsequent ones demand increasing levels of expertise. What Lewis and Norwich seem to be saying is that certain competencies and skills are required if teachers can efficiently and effectively include children with complex needs. Thus, the

nature and degree of SEN has effect on attitudes to inclusion. The Audit Report (2002) points out that in England a significant proportion of children with SEN continue to be educated in special schools funded by the Local Educational Authorities (LEAs). And to make the move smooth, the Report listed some strategies namely:

- An analysis of current pupils' needs, hence must be needs-based;
- Setting a time-table to develop mainstream capacity to meet the needs of children currently educated in the special sector

In the current investigation (see summary on Figure 6.1 and Tables 6.9, 6.10 and 6.11), it was found that the proportion of teachers who made a choice of segregating children with SEN decreased as deafness and blindness, and then severe to profound intellectual difficulties were excluded from analysis. In the results of the ten categories, 26.7% of the teachers chose segregation. However, it dropped to 15.7% when the deaf and blind were excluded and further down to 14.1% with the exclusion of the severe to profound intellectual difficulties. Similarly, there was a drop in the number of teachers' negative emotional reaction when the three categories were excluded from the analysis as Box 6.3 showed.

In the interview session with one of the teachers in the Northern Region of the country during the data collection, the reason he gave for making a choice for segregating children with SEN and disabilities was that 'there are schools for them'. Indeed in Ghana, there are Schools for the Deaf, Blind and the Mentally Handicapped in most of the regions in the country as was stated in Chapter 1. Recent statistics of special schools show there has been an increase in the number of special schools as well as students in these schools. It was therefore probable that the existence of the special schools affected the teachers' choice of educational provision for the children. The results highlight how children with SEN in Ghana are assessed and placed in institutions in the country.

Avoke (2001) pointed out that the medical model is used in Ghana to address the needs of the child with SEN. A child who is suspected of being at-risk for a developmental disability is required to be referred to the National Assessment and Resources Centre (NARC) in Achimota, Accra, for assessment and placement. Apart from the NARC, there are units in major hospitals and institutions in the country that occasionally assess children's sight and hearing. A good example is the Audiology Unit in University of Education of Winneba. Gyimah (2000) found that most parents preferred to take their children to the hospitals rather than the designated National

Assessment and Resources Centre for assessment. Assessment is usually not multidisciplinary and the needs of the child are not comprehensively assessed. On the basis of the outcomes of the assessment, the child is assigned a label and placed in a school. Usually, the nature and degree of the disability are the main criteria for the child's educational placement. Due largely to mislabeling, it is not uncommon to find children with various degrees of disability conditions put together in the same room in special schools. Once such placement is done in a special school, there is often no exit point for the child (Gyimah, 2001). The institution becomes the child's new home and permanent abode. This trend does very little towards harnessing potentialities and making individual children become useful to themselves and their communities at large. Jongmans (2005, p. 162) noted that 'the time when a child's development was viewed primarily as unalterable and fixed is far behind us'.

As Dockrell and Lindsay (2000) rightly recognised 'inclusive policies do not combine easily with medical models of diagnosis. It is therefore expedient to consider Weddell's (1978) interactive model which combines individual relative strengths and weaknesses (i.e. within-child factors or inherent characteristics) and the nature of their environment (i.e. the supports and barriers surrounding them). The model appears to be more appropriate in meeting the needs of children with SEN and disabilities in Ghana. This gains support from the UK SEN Code of Practice (DfES, 2001) which states emphatically that 'the key to meeting the needs of all children lies in the teacher's knowledge of each child's skills and abilities and the teacher's ability to match this knowledge to finding ways of providing appropriate access to the curriculum for every child' (p. 51).

From the foregoing, it appears children with SEN and disabilities may be wrongly placed due largely to misdiagnosis. Children's needs have to be thoroughly assessed for information on educational placement and the type of service that best meet their needs. Identification and assessment of the child's needs should go beyond the type, nature and degree of a child's SEN. Weddell's (1978) interactive model may therefore be useful. Professionals in health, social welfare department and education should come together in meeting the needs of children with SEN and disabilities. For example, children with neurological or orthopaedic difficulties and musculoskeletal conditions (Hunt and Marshall, 2002) may well be supported if their 'motor skills and mobility, self-care skills and social and emotional development' (Hunt and Marshall, 2000, p. 513) needs are taken into consideration. How can these be achieved if the

regular classroom teacher is the sole person responsible for meeting the child's needs? This is why multi-disciplinary teams have to be formed to identify and meet children's needs. Equally important to meeting the needs of SEN and disabilities is permitting manageable class size in order to have enough space for free movement and use of prosthetic materials.

In Ghana, Okyere (2003) reports that 'parental involvement in the decision-making concerning their children is totally absent' (p. 26) and government funding is limited. These are real issues that must be quickly addressed. It is therefore suggested that parents should be involved as much as possible since they hold key information about their children which can be useful to professionals in making invaluable decisions affecting the child's education and development (Okyere, 2003; DfES, 2001). Sugden and Chambers (2005, p. 196) encourage the involvement of the family since part of the child's development is inextricably linked to his or her total lifestyle, particularly in the context of the family. It is equally important to listen to the voices of the SEN children themselves if they are able to express themselves. The SEN Code of Practice points out that children with SEN have 'a unique knowledge of their own views about what sort of help they would like to enable them to make the most of their education' (DfES, 2001, p. 27). They should be given the chance to suggest the type of school and help they would need. Articles 12 and 13 of the United Nations Convention on the Rights of the Child underscore this point.

Teacher characteristics affecting attitudes to inclusion

In discussing teacher characteristics as a theme, I use evidence derived from research. Ellins and Porter (2005) point out that if children with special educational needs are to succeed in the mainstream education system, then their needs must be met within the classroom and teachers who are expected to meet them must be willing to provide for them. Gross (2002) argues that a child's achievement or lack of it is dependent on the effectiveness of a school and that if efforts are made to improve teaching techniques, achievement levels increase. These suggest that teachers' entry behaviour that is the characteristics or behaviour teachers bring into the teaching and learning environment are/is critical. The following characteristics are discussed in relation to the theme:

- Gender and attitude to inclusion,
- Age of teacher and attitudes to inclusion,

- Teacher qualification and attitudes to inclusion,
- Length of teacher experience in teaching and attitude to inclusion,
- Level of teacher experience in teaching and attitude to inclusion, and
- Teachers' knowledge of SEN and attitude to inclusion.

Teacher gender and attitudes

The research of Avramidis et al (2001) indicated that female teachers had more positive attitude to children with SEN than their male counterparts. This implied that more female teachers would welcome children with SEN in mainstream classroom than their male counterparts. But in this study, there was lack of support since the chi-squared tests for the ten SEN categories (see summary on Table 6.12) indicated a lack of statistically significant difference at 0.01 levels. Even at 0.05 levels it was found that statistically significant difference was observed only in physical disorders and health disorders. Similarly, in investigating gender difference in emotional reaction in teaching children with SEN, the summary of the results (see summary on Table 6.23 and Box 6.4) showed that of the ten (10) SEN categories, no difference was found between male and female teachers. Apart from being encouraged and confident, they both showed anxiety, dissatisfaction and worry.

In attempting to find a reason for why there was lack of gender difference in attitude to SEN, recourse is made to the beliefs and culture of the people of Ghana which affect the orientation of male and female, rich and poor, young and old in the country. Okyere (2003) defines culture as 'a complex entity which integrates knowledge, art morality, beliefs, laws, customs, capabilities, and habits acquired by a person as a member of society' (p. 29). Okyere reports that in certain places in Africa, individuals with disabilities are worshipped for being divine manifestation of the gods. Okyere says that in Ghana, there is a belief that children's disabilities are directly linked to parents committing a crime. She specifically cited the case of Adamorabe, a village about 50 kilometres from Accra where the inhabitants, including males and females, were forbidden from fetching water from a stream on certain days. It was believed that the god of the stream could inflict punishment leading to the birth of a child with deafness when the rule was violated with impunity.

There are lots of such beliefs in Africa which are formed in various ways (see Formation of beliefs in Chapter 4) and one's gender appears not to have any effect on

them. As was described by Fishbein and Ajzen (1975) beliefs may be formed through direct experience with the belief object (descriptive), prior descriptive beliefs that go beyond the directly observable (inferential), or come about as a result of accepting information from external sources (informational). Education could have helped remove or minimise such beliefs but there is very little on SEN and disabilities in the school Curriculum (Okyere, 2003). Societal beliefs can exert positive or negative effect on both male and female teachers since teachers are products of society. This does not make it possible for both male and female teachers to understand the characteristics of children with SEN and disabilities. Holding unfounded beliefs about a child's disabilities could negate efforts towards inclusion. In a speech read for him at the opening of the 26th annual Conference of Heads of Special Schools (COHESS) in Sunyani in the Brong-Ahafo Region of Ghana, the Minister of Education, Youth and Sports on Monday 4th September, 2006 noted how imperative it is for people to understand the causes of disability since that would make them 'realise that disability is not contagious and that working with or helping a disabled person will not make the able-bodied have disabled children' (Ghana Today http://www.ghanatoday.com/index.php?option=news&task=viewarticle&sid=18939). Consequently, the Minister challenged universities, educationists and psychologists to research and ascertain the causes and prevention of disability among children.

This suggests that a more scientific explanation about why children are born with disabilities and what the children could do when their potentialities are developed is needed. A general awareness of how children with SEN and disabilities can be efficiently and effectively catered for in inclusion appears to be pivotal. Both male and female teachers need information on the genetic and environmental causes of disabilities as well as benefits in accommodating children with SEN and disabilities in the mainstream. Such education can go a long way to avert or minimise misconceptions about SEN education. This calls for central government, District Assemblies and Unit Committees' intervention. Government need to be proactive in intensifying education on SEN.

Age of teacher and attitudes

A number of studies have shown that younger teachers are more supportive of integration (Center and Ward, 1987; Clough and Lindsay, 1991) and Avramidis et al (2000) assume that newly qualified teachers hold positive attitudes to inclusion.

Avramidis et al's findings may be linked with the Labour government's initiative. Norwich et al (2001) argue that inclusion has played a central role in the Labour Government's educational policy in the area of social inclusion. Since 1997, when the Labour government came to power, it has recognised the rights of those with disabilities within society and there have been policies aimed at increasing wider opportunities for the vulnerable in society (DfEE, 1997, 2000). It may therefore not be strange to find 'newly qualified teachers' being more positive to inclusion. Prior to this, evidence from the UK points out that the Education Reform Act 1988 had introduced a quasi-market style of school system that had led to increased tendency for mainstream schools to become less well-disposed and tolerant of students with disabilities, with difficulties in learning and with behaviour difficulties (Lunt and Norwich, 1999).

Apparently, the 1997 Green Paper on 'Excellence for all children Meeting special educational needs' (DfEE, 1997) was developed to correct the anomalies that arose from the Education Reform Act 1988 and to facilitate the process of inclusion. This document was monumental for the UK began to commit herself to the United Nations Educational Scientific and Cultural Organisation (UNESCO) and the Salamanca World Statement on Special Needs Education (1994) tenets. This would imply that young teachers who were in training at the time could be positively influenced to include children with SEN and disabilities.

The results of the current investigation were inconsistent with previous findings since no statistically significant difference was found among the teachers of various ages (see summary on Table 6.13 and Figure 6.3). This means that teachers would exhibit the same attitude to children with SEN and disabilities irrespective of their age(s). Probably, the Ghana government's rhetorical approach (Avoke, 2001) to inclusion is to be blamed. It appears newly qualified or younger teachers are more likely to support the development and implementation of inclusion if government in particular and stakeholders as a whole are proactive and enthusiastic.

Teacher qualification and attitudes

Gersten and Woodward (1990) argue that without SEN competencies and skills to accommodate children with special educational needs, they are likely to fall behind if they find themselves in the mainstream. While training seems important, Murphy (1996) found only 22% of teachers in inclusive classroom said they had received

special training and just half thought the training was relevant in meeting the needs of children with SEN and disabilities. This may imply that the type and quality of training are important recipes for inclusion policy. Trendall (1989) also finds that more female teachers with lower qualifications underwent more extreme levels of stress.

The results of Table 6.14 in the present investigation indicate that in the ten SEN and disability categories, no statistically significant difference was found between the trained and untrained with the exception of mild to moderate intellectual difficulties and severe to profound intellectual difficulties. But in the results (see summary on Table 6.25 and Box 6.6) of teachers' emotional reaction in teaching children with SEN and disabilities, there was an indication that the untrained, rather than the trained, showed positive emotional reaction in teaching children with SEN and disabilities. This finding raises a crucial question concerning why (i) there was lack of statistically significant difference between the trained and untrained, and (ii) why the untrained rather than the trained were positive emotionally. In Ghana, it is common knowledge that teachers graduate from their institutions with little or no knowledge on SEN (Mawutor and Hayford, ISEC 2000 http://www.isec2000.org.uk/abstracts/papers_m/mawutor_1.htm). Thus, mediocrity in SEN education puts the trained at the same level as the untrained. Additionally, having once taught as an untrained teacher in some of the Primary Schools in the country, I realise the two groups (that is the trained and untrained teachers) have different perception of the teaching profession. It appeared the trained teachers were more concerned about their professional career and development and considered inclusion challenging. However, the untrained seemed to be more concerned about either keeping their jobs or using their occupation as spring boards for better placement elsewhere. Hence, they were less bothered about who they taught and what conditions they found in the teaching and learning environment. This could probably account for why (i) there was lack of statistically significant difference between the trained and untrained teachers in the country, and (ii) the untrained showing a more positive emotional reaction than the trained.

The finding is significant for it brings to the fore issue on quality training. Though the review of Norwich and Lewis (2001) found no SEN-specific pedagogy in teaching various ranges of children with SEN and disabilities, they recognised that 'more intensive and explicit teaching is relevant to pupils with different patterns and degrees of difficulties in learning' (p. 325). If children with SEN and disabilities can

truly progress academically and also socially, quality training should never be relegated to the background or undermined. What Gross (2002) says is helpful in this argument. Gross argues that a child's achievement or lack of it is dependent on the effectiveness of a school and that if efforts are made to improve teaching techniques, achievement levels increase. Gross buttressed her argument by citing Joyce et al's (1991) study in the United States, demonstrating how a whole school improvement programme succeeded in reducing the proportion of students who failed their end of grade assessment from 70 percent to 6 percent in two years. The implication of this is that quality training is important. There is the need for the government and people of Ghana to recognise the importance of SEN in teacher education and match it with real commitment to reform. The government should not only focus on economic development as is seen in her Vision 2020 initiative, but also ensure that teachers are highly trained to effectively and efficiently include children with SEN and disabilities.

As a way of helping regular education teachers to meet the needs of children with SEN and disabilities, the directorate of the Special Education Division in Ghana is using the UNESCO resource pack (UNESCO http://www.unescobkk.org/index.php?id=3359). The UNESCO pack was principally designed for the promotion of improved learning opportunities for street children. This is an important step towards helping the disadvantaged to learn, but the pack does not go far enough to help teachers meet the needs of children with SEN and disabilities. In the UK, in order to widen access and to create equal opportunities for all children of school going age to develop their potentialities, in March 2000, the Index for Inclusion (Booth, Ainscow, Black-Hawkins, Vaughan and Shaw, 2000) was launched with the support of government and widely circulated to the 26,000 primary, secondary and special schools and all the Local Educational Authorities in England (Norwich, Goodchild and Lloyd, 2001).

As was said, the Index for Inclusion is a set of materials to support the process of developing inclusive schools. It provides guidelines to inclusive practice (Croll, 2001) and represents the product of three years pilot work and development in 22 schools across England. The index is organised into four parts. In the first part, there is information about what the inclusive approach to school development is all about. The second part is concerned with a five-phase process vividly explained, while the third deals with a hierarchical breakdown of what inclusion involves. This part is intended to be used in flexible ways by individual schools through self-initiative by groups of

schools working together and with Local Educational advisory staff, by groups of teachers, by governors or for school-based research work. It is noteworthy that this part is intended for use as part of a five-phase model of managing change. In Part 2 some suggestions are made on how some activities can be carried out through the use of questionnaire. Apart from this, there is SEN Code of Practice and SEN Toolkit (DfES, 2001) to guide inclusion practice.

Though conditions in the UK are not similar to Ghana's, the index can be studied and where possible adapted to suit the needs of Ghanaian teachers. With the support of central government and other stakeholders, funding can be procured for a project of this nature. Many studies show that teachers are the pivot to inclusion and their lack of interest or enthusiasm in any policy could have serious repercussions especially on those for whom it is intended (Mushoriwa, 2001; Wisniewski and Gargiulo, 1997). Farrell and Ainscow (2002) and Jupp (1992) have succinctly argued that if the regular or general education teacher lacks the requisite competence to accommodate the child with SEN, not much can be gained. It is therefore important for the country to find better ways of training teachers than relying on adhoc measures. Measures would have to be put in place to orient teachers to the best ways to respond to the needs of children with SEN and disabilities. Information is needed on identifying, assessing and meeting children's SEN in regular schools and classes. With positive attitudes, they can help to change societal beliefs which negate the development of the potentialities of children with SEN and disabilities. It is suggested that the Curriculum for prospective teachers should encourage them to reflect on their attitudes to those with SEN (Golder et al, 2005). The UK government's paper Removing Barriers to Achievement (DfES, 2004) emphasises the importance of teachers to have skills and confidence to help children with SEN reach their potential (Golder et al, 2005).

It is suggested that in the training, teachers are shown how to develop Individualised Educational Plans (IEPs) (Institute for Education Policy Studies http://www.edstudies.net/resources/enhancing/part_b.html) to meet the needs of children with SEN and disabilities. In the United States and United Kingdom, IEP contributes significantly to meeting a child's SEN. IEP is a written document that provides information on the strengths and weaknesses of a child and how their needs can be catered for by the classroom teacher(s) and other professionals. It is a teaching and learning plan setting:

- 'what' should be taught
- 'how' it should be taught and
- 'how often' particular knowledge, understanding and skills through additional or different activities from those provided for all pupils through the differentiated curriculum' (DfES SEN Toolkit, 2001) should be taught.

It is also suggested that in-service training programmes should be organised for teachers who are already in the field on how they could design IEPs. In doing this, the child, the child's parents, the classroom teacher and a few other professionals who would be working to meet the child's needs should be involved. Most important, there should be annual reviews of the IEPs for information on the child's progress and for decisions to be made on maintaining, modifying or jettisoning what is being used.

Length of teacher experience and attitudes

Leroy and Simpson (1996) three-year period study in the state of Michigan in the USA indicated that teachers' negative or neutral attitudes at the beginning of an innovation such as inclusive education may change over time as a function of experience and the expertise that develops through the process of implementation. This view is generally supported by findings in the UK and Australia (Beh-Pajooh, 1992). Avramidis et al (2000) reported that teachers' experience has positive effects on inclusion and that teachers who have implemented inclusion programmes and therefore have active experience were more positive about inclusion. Soodak, Podell and Lehman (1996) have also reported that teachers with low teaching efficacy and experience were less receptive to teaching children with SEN and disabilities in the mainstream. In contrast, Stephens and Braun's (1980), Forlin (1995) and Gilada et al (2003) do not support the notion that a teacher's length of teaching experience has effect on his or her attitude to teaching children with SEN and disabilities. In their studies, they found that teachers who had taught for several years were less supportive of inclusion. These arguments suggest that there is still considerable debate on the effect of experience in inclusion.

The present study did not support any of the previous findings that teachers' experience has positive effect on their attitude. In the chi-square test in Table 6.15, no statistically significant difference was observed among the teachers with different levels of teaching experience. Aside from this, the results of Table 6.27 and Box 6.8 on teachers' emotional reaction in teaching children with SEN and disabilities failed to

support the factor of length of teaching experience on teacher attitude. Irrespective of the number of years a teacher had taught, in teaching children with SEN and disabilities, there was anxiety, dissatisfaction and worry. Perhaps, lack of inclusion policy wholly implemented in all schools in Ghana account for why no difference was found in the current investigation. In the Ministry of Education Strategic Policies for the Education Sector, the government of Ghana is exercising caution, hence implementing inclusion by stages (Casely-Hayford and Lynch http://imfundo.digitalbrain.com/imfundo/web/papers/sen_phase2/SEN%20PHASE%202%20FINAL.doc). It is stated that:

> 'one region of the country should be identified for an intensive programme for an inclusive education each year for the next 10 years. This would include the selection of 5-10 schools per district for inclusive education using itinerant teachers based at these schools'.

It is obvious that a strategy of this nature has the chance to undermine the tenets of inclusion policy and practice and put children with SEN and disabilities to developmental risks. This is so because teachers who are apt to include children with SEN and disabilities may be denied the opportunity to do so. Without policies and regulations and full commitment to inclusion, teachers may not regard it obligatory to plan for children with SEN and disabilities. In the conceptual framework on Fishbein and Ajzen's (1975) theory of reasoned action, it was said that attitude toward relevant behaviour is based on beliefs regarding the behaviour and its likely outcomes. It was found, for instance in the subjective norms that the reaction of others serve as the basis for a person to reach a decision to act or not to act. If teachers become aware that society is interested and are carefully watching how they include children with SEN and disabilities, they are likely to be challenged to take the philosophy of inclusion seriously. The suggestion here is that there should be more commitment to inclusion and a change in strategy for inclusion to work. The idea of entrusting only one body with the task of implementing inclusive education needs to be reviewed to take on board other bodies with a stake in the development of children with SEN and disabilities. In Ghana, in-service training is regularly organised for teachers who are already in the field to update their knowledge on education policies and philosophies. I suggest a strengthening of these activities.

Level of teacher experience and attitudes

In the results presented on Table 6.16 significant statistical difference was found between teachers who had taught and those who had not taught children with SEN and disabilities. There were differences found in four of the SEN categories, namely, emotional and behavioural difficulties, hard-of-hearing, low vision and speech and language difficulties. In these categories, teachers who had taught children with SEN and disabilities were found to have a better attitude than those who had not taught them. The summary of Table 6.28 and Box 6.9 also showed that teachers who had taught children with SEN and disabilities were encouraged, satisfied, confident and self-assured, but those who had not taught them were only encouraged. Some writers have reported that the more a teacher has the chance to interact with a child with SEN, the better the attitude (Hastings, Hewes, Lock and Witting, 1996; Leyser et al, 1994; Jones, Wint and Elliis. 1990; Yuker, 1988). To some extent therefore, this investigation corroborated previous findings.

Similarly, the finding supports Fazio's (1989) and Fazio and Roskos-Ewoldsen's (1994) theory of attitude-to-behaviour process model which emphasises the strength of stored knowledge of and experience with the attitude object. In the conceptual framework it was found that Fazio (1989) and Roskos-Ewoldsen (1994) argue that direct behavioural experience is more predictive of future behaviour towards that object than are those based on indirect experience. This would mean that a teacher's knowledge of SEN and disabilities alone is not enough for inclusion to succeed. Interaction with child is equally important. The theory was predicated on the assumption that the more experience one has with the attitude object, the more the acceptance. Thus for children with SEN and disabilities, teachers are likely to develop more positive attitude towards them when they have had the chance to interact and teach them.

However in interpreting the results, there should be some caution for it was only in two-fifths of the cases that statistically significant differences were found. There was no difference between the two groups of teachers in teaching children with mild to moderate intellectual difficulties, severe to profound intellectual difficulties, physical disorders, health disorders, deafness and blindness. This might mean that experience with children with SEN and disabilities in terms of teaching them may or may not be critical and that there may be other factors teachers may consider if they are required to teach children with various ranges of SEN in the mainstream. Scruggs

and Mastropieri (1996) regard 'time' and 'expertise' as prerequisites, while Peetsma et al (2001) mention the child's characteristics in addition to the conditions under which their SEN's would be met. These may mean that in thinking about inclusion there is interplay of teacher and child characteristics and organisational factors and that no single factor can guarantee success. It appears teaching experience by itself is not the answer to improving attitudes.

In examining teachers' emotional reaction on the basis of their level of experience, that is, whether they had taught or had not taught children with SEN and disabilities, the summary of Box 6.9 showed that teachers who had not taught them were encouraged. This is without prejudice to the teachers not being satisfied, confident and self-assured in teaching the children in the mainstream. This finding is significant for it challenges the MEPSPESG's notion that 'the curriculum policy takes into account of the need not to make excessive demands on teachers relative to their circumstances...' (p. 50). Whatever the teachers 'circumstance', priority should be given to the development of the children since the benefits appear enormous (Artiles and Dyson, 2005). The earlier children with and without SEN and disabilities are exposed to each other, the better it is for their interaction (Deiner, 2005). A lot can be achieved when they are young than when society waits until they are old to engage them in rehabilitation programmes. More important, it is a call for the country's Members of Parliament to seriously consider giving legal backing to the inclusion policy document currently before them (Caseley-Hayford, 2002). This may not automatically lead to inclusion as Moltó (2003) study reports, but it could contribute greatly to its development and implementation. Since teachers appear not to be aversive to the inclusion of majority of children with SEN, there is no point delaying its passage.

Teachers' knowledge of SEN and attitudes

Section 5:37 of the SEN Code of Practice identifies the key to meeting the needs of all children to lie in the teacher's knowledge of each child's skills and abilities and the teacher's ability to match this knowledge to finding ways of providing appropriate access to the curriculum for every child. In other words, teachers' ability to plan effectively for a child with SEN depends on his or her knowledge of the child's abilities. In fact, this was one of the fundamental issues the Salamanca Statement

raised in Paragraph 2 when it said 'Every child has unique characteristics, interests, abilities and learning needs'.

From the results presented on Table 6.17, statistically significant difference was found between teachers who knew and those who did not know how to teach children with SEN and disabilities. In three of the SEN categories, namely, mild to moderate intellectual difficulties, emotional and behavioural difficulties and hard-of-hearing, statistical significant differences were found between the two groups of teachers. But in the other SEN categories, no difference was found.

Many researchers have reported on the impact of knowledge / information on SEN. For example, Avramidis et al (2000) find that this area has attracted 'considerable attention'. In the belief research chapter (see Chapter 4), it was pointed out that in certain situations, a person's cognitions or feelings may give rise to attitude (Millar and Tesser, 1986, cited in Zimbardo and Leippe, 1991, p. 196), but at other times or circumstances, there may not be any knowledge about a particular phenomenon, yet an attitude toward a belief object may be prejudiced (Fiske and Taylor, 1984).

The UK government strategy paper on Removing Barriers to Achievement (DfES, 2004) highlights the importance in equipping teachers with skills and confidence that enable them to optimise the potentialities of children with SEN and disabilities. It is the teacher's knowledge that would help in the planning and presentation of tasks and more important to sustain child's interest for learning to take place. Through planning, a teacher selects tasks and instructional techniques appropriate for the child and to seek for help from peers and/or special education teachers if the need arises. Without knowledge and expertise to meet the needs of children with SEN and disabilities (Gersten and Woodward, 1990) placing a child with special educational needs in the general education environment will not automatically guarantee their success (Wilson, 2003). Golder et al (2005) argued that inclusive schooling has created a need for teacher education courses to encourage trainee teachers to reflect on their attitudes to people with SEN. If teachers lack the training and information about children with SEN and disabilities, they are likely to reject these children with dire consequences. Education and training is important for inclusion programmes to be successfully implemented (McLeskey, Henry and Axelrod, 1999); and critical to the development of positive teacher attitudes toward the concept of inclusion (Vaidya and Zaslavsky, 2000). O'Donoghue and Chalmers (2000) indicate

that teachers are ready to accept children with SEN and disabilities when they have sufficient information about them and their management. These would suggest that for inclusion to be effective, teachers should know who they are teaching, what to teach, how to teach it and when to teach it.

But the extent to which knowledge gained through education and training affect teachers' attitudes to inclusion is debatable. Cornoldi, Terreni, Scruggs and Mastropieri (1998) argued that teachers may favour inclusion without feeling they have had training. Inasmuch as the ten categories were concerned, the present study does not absolutely support the earlier findings. The reason for this is that it was only in three-tenths of the cases that differences were noticed between those who knew how to teach and those who did not know how to teach children with SEN and disabilities. Significantly, the finding highlights the importance for researchers to continue to engage in more research in this area. The summary on Table 6.29 and Box 6.10 showed there was no difference in the emotional reactions of teachers who had and those who did not have knowledge in teaching children with SEN and disabilities. They both reported two positive, that is, 'Encouraged' and 'Confident' and three negative, that is, 'Anxious', 'Dissatisfied' and 'Worried' emotional reactions. Thus, while knowledge and information about SEN may be regarded as relevant (Murphy, 1996) to accommodate children with special educational needs (Gersten and Woodward, 1990), they may not be sufficient to promote inclusive practice.

From the fore-going, it can be said that the characteristics teachers bring into the teaching and learning environment are crucial, but not sufficient to develop and implement policy on inclusion. It necessitates a systemic (Kirk et al, 2000) or ecological approach (Bronfenbrenner, 1989). But as professionally trained individuals, teachers have a role to play in the practice of inclusion. This role can be achieved if they themselves welcome children with SEN and disabilities and throw behind them all forms of discriminatory tendencies. It would mean that for the benefits of inclusion to be realised, a need for further 'professional development experiences for teachers' (Jones, 2005, p. 383) is required to improve their attitudes towards all children with SEN and disabilities.

Organisational factors affecting attitudes to inclusion

One of the tenets of Paragraph 2 of the Salamanca Statement (UNESCO, 1994) requires education systems to be designed and educational programmes implemented

to meet the needs of children with SEN and disabilities. The study did not specifically explore socio-political factors affecting teacher attitudes to inclusion. However, as Mitchell (2005) stated,

> 'Inclusive education is embedded in a series of contexts, extending from the broad society, through the local community, the family, the school and to the classroom' (p. 14)

Mitchell (2005) further pointed out that a school can be found in a community where there are a range of 'values, legislation, and resources' (p. 15). Some of the reasons the teachers gave in the interview session help to identify some of their difficulties particularly in such areas as teacher education and training, funding, educational resources, and national policies and regulations. In discussing the theme on organisational factors, the following are discussed: regional and level of urbanisation, and type of support services.

Regional and level of urbanisation and attitudes to inclusion

- Location of school

Avramidis et al (2000) examined the area of school but did not find any to be significantly related to the respondents' attitude. In contrast O'Donoghue and Chalmers (2000) reported that in rural and remote areas of Western Australia where education support and facilities were not available, teachers accepted children with severe or profound intellectual disability. In the raw scores of the current investigation, it was found that teachers in the Northern Region of Ghana were more supportive of segregation than the two other regions. The Ashanti and Central Regions were more supportive of mainstream (see summary on Figure 6.8). However, statistically significant difference was found only in physical and health disorders, but there were no differences between the regions in the rest of the SEN categories (see summary on Table 6.18). The results showed that if there were any regional differences at all they were negligible. For example, the urban results across the three regions for mainstreaming (with or without support) showed the following: Northern Region, 65%; Ashanti Region, 74% and Central Region, 71%. In terms of urban, semi-urban, or rural within regions (see summary on Table 6.19 a, b, and c; then Figure 6.9) differences were found to show that the area of a school had influence on teacher attitude. In the summary of the interview results on Figure 6.19, teachers in semi-urban

setting were the most supportive of mainstream followed by those in rural area. Teachers in the urban setting or area were the least supportive of mainstreaming children with SEN and disabilities.

In Ghana, the Curriculum and Research Development Division (CRDD) of the Ministry of Education, Youth and Sports takes up responsibility for designing the school curriculum for all schools in the country. But in pursuing the objectives of a National Curriculum, considerations appear not to have been given to local factors such as variations in physical, economic and social conditions which might influence teachers' attitude to children with SEN and disabilities. In the UK, the National Curriculum Inclusion Statement enjoins all teachers to:

- Set suitable learning challenges
- Respond to pupils' diverse needs, and
- Overcome potential barriers to learning and assessment for individuals and groups of pupils (DfES, 2001).

Among the fundamental Principles guiding the Code, children with special educational needs are to be offered full access to a broad, balanced and relevant education, including an appropriate curriculum for the foundation stage and the National Curriculum. Yet the SEN Code of Practice requires Local Educational Authorities (LEAs), schools and settings to exploit best practices in meeting a child's SEN. The Code does not tell schools what to do. Schools as well as Local Educational Authorities (LEAs) have the right to fulfil their statutory duties using strategies that would be suitable to them. Weddell (2005) mentioned that many schools have overcome the barriers to inclusion using different ways. Weddell further points out that schools have the chance to devise flexible approach to meet the objectives of inclusion and to make individual pupils' progress. This may suggest that individual schools need to be given opportunities to fashion their own philosophies for inclusion. In this way, success stories can be celebrated and experiences shared (Ainscow, 1999, 2005). Similarly, arrangements should be made such that teachers can have the opportunity to develop their ethos to guide inclusion. Teachers are likely to be more committed to inclusion when they have a hand in its development. When inclusion is imposed on them as was done in Spain (Moltó, 2003), very little is achieved.

- Teacher education and training

In Ghana, Teacher Education is taken seriously but there is very little on SEN in the Curriculum. The Special Education Division (SpED) of the Ministry of Education is responsible for planning and implementing SEN programmes to meet the academic and social needs of individuals in special schools in the country. The University of Education of Winneba has the mandate to train teachers for the special schools, but the attrition rate is described as high (Casely-Hayford and Lynch http://imfundo.digitalbrain.com/imfundo/web/papers/sen_phase2/SEN%20PHASE%202%20FINAL.doc). This role is complemented by the University of Cape Coast (Okyere, 2003). According to Okyere (2003), teachers who have the desire to specialise in SEN, are required to acquire three years teaching experience after their initial training before enrolling for a three-year training programme in SEN and disabilities.

A high attrition rate may mean there would be insufficient number of teachers with knowledge in SEN and disabilities (Mawutor and Hayford, ISEC 2000 http://www.isec2000.org.uk/abstracts/papers_m/mawutor_1.htm) to help regular education teachers meet the needs of children with SEN and disabilities. This is attested to by the responses of some of the respondents at the interview during the data collection:

- 'I don't have that special training to teach the blind',
- 'Because I can't take care of that child because I'm not trained on that' ,
- 'It is very difficult to handle such children',
- 'It won't be easy teaching', and
- 'There may be some things the mainstream teacher may not know'.

Consequently, those SEN children who get frustrated in school either drop out of school or stay there and fail (Okyere, 2003). This situation does not augur well for effective implementation of inclusion policy. In the South African model of SEN (Lomofsky and Lazarus, 2001) there is fusion between regular and special education in the Education Department. In this way collaboration between regular and special education can be facilitated.

Type of support system / service and teacher attitudes to inclusion

- Inter-agency collaboration

The UK government strategy for SEN says that in the practice of inclusion, other services, which are 'different from' or 'additional to' what is there must be thoughtfully considered. The Audit Commission (2002), reports that children with statements in the mainstream sector face barriers to learning. Among the reasons given was shortfalls in specialist support. If inclusion can be effective, support must be provided to the regular school teacher. In the UK the use of specialist service such as the Special Educational Needs Co-ordinator (SENCO) is required. In Section 8 of the SEN Code of Practice, recommendation is made for schools and LEAs to adopt a graduated approach through *School Action* and *School Action Plus*. School Action (SA) simply denotes the action a school takes upon identifying a child's SEN. The action is limited to the school, not the home, and it basically involves the class teacher and Special Educational Needs Co-ordinator (SENCO). The teacher is statutorily required to inform the SENCO about the child's SEN and to devise interventions that are additional to or different from those provided as part of the school's usual differentiated curriculum offer (DfES, 2001). By additional to or different from it simply means adding certain activities to or removing some activities from the curriculum to enable the child to benefit from classroom experiences. The SENCO reviews teaching style and child's ability to access the curriculum and makes recommendations on accommodation. In the process of reviewing these, the class teacher is expected to work with the child on daily basis, plan and deliver an individualised education plan (IEP) while the SENCO plans future interventions for the child in discussion with colleagues. What is unique in this process is that parents are not immediately contacted.

If teachers can make adaptations to accommodate the child, a lot can be gained and parents can be spared the trauma of thinking about their child's condition. In School Action Plus (SAP) parental involvement is crucial since parents have to assist the school to meet the child's needs. SAP takes place when (SA) fails to meet child's needs. SENCO and class teacher consult the child's parents before they engage external services. Specialists are then called to give support. As a result of the additional services that may be received, additional or different strategies to those at School Action are put in place.

The Government Strategy (DfES, 2004) was to prevent individual schools from working independently or in isolation or competing against each other and instead encourage the use of collaborative or partnership approach between:

- The local authority
- Between schools
- With health and social services, and
- With Voluntary organisations

Through this SEN approach, a broader approach to education reform could be achieved since 'no single professional' (Kirk et al, 2000, p.371) can deal with a child's SEN and disabilities.

In this study, it was found that teachers were more positive towards consultation service to include children with SEN and disabilities (see Table 6.20 and Figure 6.10). The study suggests that teachers should be encouraged to consult peers when they are faced with the problem of meeting any specific SEN condition. This finding calls for inter-agency collaboration in the implementation of inclusion. In Ghana the Department of Social Welfare and Ministry of Health are required to collaborate with the Ghana Education Service and Special Education Division in meeting SEN, but it appears these bodies work independently from each other. Apart from this, there is traditional lack of links or collaboration between special and regular schools (Emanuelsson, Haug and Persson, 2005), a situation Okyere decries. This lack of co-operation and collaboration could jeopardise the objectives of inclusion. It is therefore suggested that there should be co-operation and collaboration to facilitate the teacher's work in the classroom. Olukotun and Oke (2005) suggest that all stakeholders in the education of the disabled should be consulted on how to move the inclusive education project forward.

- <u>Funding</u>

Funding is a key factor to consider in developing a policy on inclusion. Artiles and Dyson (2005) note that financing and support of educational services for SEN is a primary concern since other sectors of the economy compete for attention. Without sufficient funding, it becomes difficult to realise the objectives of inclusion no matter how it is presented on paper. In the interview data, respondents cited the following as reasons why they thought they could not teach children with SEN and disabilities:

- 'Vision is possible after diagnosis and use of glasses',

- 'The use of teaching aids can help',
- 'Set up of buildings in the mainstream does not permit the use of wheelchairs',
- 'Find the child a special chair',
- 'Provided hearing aids are available', and
- 'Involving experts can be helpful'.

These suggest that in thinking about inclusion, funding for diagnosis, teaching and learning materials, wheelchairs, accessible buildings and involvement of experts has to be seriously considered. This calls for regular and sufficient funding which is usually hard to come by in a developing economy like Ghana. Okyere reports of her interaction with some individuals in government for possible funding of the education of children with SEN and disabilities and concluded that 'even those with positive attitude still feel that it is not worth it under the prevailing economic conditions' (p. 35). Okyere further reports that even the special schools in the country sometimes have to organise fund raising for teaching and learning materials. Prior to his studies in the UK, the researcher witnessed students in the School for the Blind, Akropong-Akwapim, demonstrating to draw the government's attention to Braille materials. Considering the benefits of inclusion, it would be good for the government and stakeholders to financially support inclusion.

- <u>Educational resources</u>

Resources are prerequisites for educating and training children with SEN and disabilities. Scott, Vitale and Masten (1998) and Scruggs and Mastropieri (1996) indicated that 'teachers perceive instructional adaptations advisable and necessary but they experience difficulty in implementing them in the regular classroom'. One of the reasons they give is the lack of resource to plan as well as teach adequately students with special educational needs. The Council for Exceptional Children (CEC) (1996) views inclusion to be problematic if time and resource allocation are poorly done. In the Interview session some respondents gave reasons to show that resources are important in teaching children with SEN and disabilities. Consider the following:

- 'when resources are available, education is possible'
- 'extremely difficult to learn without special support materials, methods'
- 'I don't think I will get the Braille in the school. No. And since I don't have that background I can not teach a child like this'.

Deiner (2005) points out that children who have very little or no usable vision need additional accommodations, for example, the use of Braille and pegs and pegboard for writing, wooden letters for tracing, and a computer or word processor for written work. Without qualified interpreters and hearing aids, the child with deafness, for example, may be unable to benefit from the mainstream activities. To include the deaf in the mainstream, for instance, there should be interpreters and hearing aids. The blind needs a system of communication which is usually in the form of Braille (Okyere, 2003).

Despite estimated three-quarters of the country's yearly budget going into education, prevailing economic circumstances do not allow the central government and District Assemblies to support inclusion policies through the provision of teaching and learning resources. Lack of human and material resources can be a barrier to inclusion. The deaf are being educated in the mainstream but there is concern about the quality of their learning in the mainstream classroom (Ramsey, 1997). Probably for these reasons, the UK government strategy to remove barriers to achievement made provision for funding SEN (DfES, 2004).

If inclusion can be beneficial to those children teachers find it difficult to include, then there should be adequate materials and human resources. In this case, central government, District Assemblies, Non-governmental organisations and philanthropic societies may be required to assist in this direction. Government has to take the education of teachers seriously to reduce attrition rate. Teachers can be motivated if they have the knowledge and information as well as adequate materials and human resources to teach children with SEN and disabilities. Devoid of these, teachers are likely to segregate children with SEN and disabilities.

- <u>National policies and regulations</u>

  The child with SEN is the ultimate beneficiary and recipient of any policy on inclusion. Article 2 (1a) of UNICEF Convention on the Rights of the Child enjoined States Parties to respect and ensure the rights of every child within their jurisdiction

  > without discrimination of any kind, irrespective of the child's or his or her parent's or legal guardian's race, colour, sex, language, religion, political or other opinion, national, ethnic or social origin, property, disability, birth or other status (UNICEF http://www.unicef.org/crc/crc.htm).

The UK provides a stronger right to children with SEN and disabilities to be educated at a mainstream school (DfES, 2004). The document on Excellence for all children

meeting special educational needs pupils with special educational needs are to whenever possible receive their education in a mainstream school and join fully with their peers in the curriculum and life of the school (DfEE, 1997).

Though special education has been in Ghana since 1936 (Obi and Mensah, 2005), Okyere (2003) intimates that no specific legislation is there for special education in Ghana and that regulations for regular education also apply to children with SEN and disabilities. Okyere refers to the Education Act of 1961 that emphasised the right of every child of school-going age including the child with SEN. It is often debated if National SEN Policy can by itself promote inclusion. On the BBC Channel 1 on 3rd July 2006 there was a news item of some parents of children with SEN and disabilities challenging the UK government's policies on inclusion. A parent is reported to have said that government's policies were confusing and scary and that her child was not receiving the help needed in meeting his special needs. On 13th July 2006, the same channel again reported that the Office of Standards in Education (Ofsted) had said children with SEN and disabilities can do well in regular or special school in response to a query that policies were too bureaucratic. Would this suggest that government's policies by themselves are not the answer to inclusion?

Senge (1990) argued that policies tend to change the way things look but not the way they work. Ainscow (2005) notes that policy documents, conferences and in-service courses do not lead to significant changes in thinking and practice. The Spanish government's experience indicated that when laws on inclusion were forced on teachers, the outcomes became fruitless (Moltó's, 2003). Thomas and Loxley (2001) also argued that legislation alone is not a sufficient condition for reform if branding practices continue. This would suggest that government policies by themselves may not hold the key to inclusion. For policies to be practicable and for parents to feel satisfied and not worry, inputs from teachers are necessary.

In a nutshell, socio-political factors have to be taken into consideration in the process of including children with SEN in mainstream activities. The Curriculum for teacher education must enable teachers to develop practices that promote positive attitudes to children with SEN and disabilities. Governments and stakeholders should ensure that schools are adequately funded and equipped with resources to ease teaching and learning.

CHAPTER EIGHT

CONCLUSIONS AND RECOMMENDATIONS

Introduction

This final chapter focuses on the conclusions and recommendations of the investigation. Early studies on teacher attitudes had largely been carried out in the United Kingdom, United States, and Australia where there are state-backed policies on inclusion. Literature from Ghana had indicated that the attitudes of teachers to children with SEN and inclusion were negative, but there had been no robust research to examine teachers' attitudes. In particular, there was no information about the type of SEN teachers would teach in the mainstream with or without support. There was also no information about the type of emotional reaction teachers underwent in teaching children with SEN. On this basis, the survey incorporated some aspects of teacher characteristics which research literature indicate have effects on their attitudes to SEN. These included gender, age, qualification, length of teacher experience, whether teacher has taught or not taught children with SEN, and whether teacher knew how to teach children with SEN or not. Ten SEN categories including children with intellectual difficulties, emotional and behavioural difficulties, sensory impairments, health and physical disorders and communication difficulties were selected. The attitude scales were concerned with choices of educational provisions and teachers' response to five bi-polar emotional reactions. In order to ensure clarity in the discussion, the chapter is organised systematically to correspond with the following headings: child characteristics; teacher characteristics, and organisational factors.

Child characteristics affecting teacher attitudes to inclusion

Western literature is unanimous that children with emotional and behavioural difficulties (EBD) are teachers' greatest concern. They are the category most teachers would prefer to exclude from the mainstream. The result of this investigation showed that the teachers were more concerned about severe to profound intellectual difficulties and those with sensory disabilities. The question that needs to be answered is why there was differences in the type of SEN teachers were most concerned about. In

addition, we should ask if teachers really comprehended what EBD was since a lack of understanding could possibly have had an effect on the result. Though it was pointed out in the course of the discussion that teachers in Ghana appeared to use punishment unethical as it was to control behavioural disorders and failed to recognise the rights of the individual child, additional information is needed. In fact, this is an important area for research to fully understand why teachers in Ghana did not regard those with EBD a concern. There ought to be robust research to find out why teachers in Ghana do not regard EBD as a problem. If the method(s) employed to curb maladaptive behaviour is/are not conceived as infringement on the individual's human rights, an answer would have been found for including all children including those with emotional and behavioural difficulties. This way, inclusion could move a step forward. It may also be of interest to the research community for more information about the characteristics of children with severe to profound intellectual difficulties and those with sensory disabilities. Having a better understanding of who they really are could help teachers and other professionals meet their unique needs.

An additional finding of the study related to the nature and degree of a child's SEN and teachers' attitudes to inclusion. Center and Ward's (1987) study of Australia showed that teachers' attitudes to inclusion were positive where the child's disabling condition did not require extra instructional or management skills. The current results showed that teachers tended to prefer those children who seemingly did not require much instructional or management skills. It was found that teachers were more positive for including children with mild to moderate intellectual difficulties than those with severe to profound intellectual difficulties. Similarly, the teachers were more positive to the hard-of-hearing than the deaf; and more favourable of the low vision than the blind. In the results examining teachers' emotional reaction, there was evidence of teachers being positive emotionally in teaching or being asked to teach the mild to moderate intellectual difficulties, emotional and behavioural difficulties, physical and health disorders, low vision and speech and language difficulties in the mainstream, but not for the severe to profound intellectual difficulties, hard-of-hearing, deafness and blindness. But there is lack of clarity on whether teachers' opinions or preferences were based on the children's physical appearance, academic characteristics and/or their own individual and personal lack of competence in teaching children with SEN. These need to be resolved since they seem complicated. An understanding of the inter-connecting factors may be needed, hence, a vital area for further investigation.

Teacher characteristics affecting teacher attitudes to inclusion

On teacher gender and attitude to SEN, the results showed there was no gender difference in teachers' attitudes to inclusion for the ten selected SEN categories apart from physical and health disorders. The attitudes male teachers showed towards the inclusion of children with SEN were similar to the female teachers. Additionally, there were similarities in emotional reactions between male and female teachers in teaching or being asked to teach children with SEN. While on the positive side they were both encouraged and confident, on the negative, there was evidence of anxiety, dissatisfaction and worry. This result was not anticipated for as was discussed, previous research (Avramidis et al, 2001) had indicated that female teachers had more positive attitudes to children with SEN. In the discussion, it was stated that cultural influence probably could account for the lack of gender difference in Ghana. Consequently, a suggestion was made that at the national, district and local levels, efforts should be made to provide a more holistic education which places emphasis on scientific explanation about the causes of SEN and disabilities to minimise unfounded beliefs. But this would warrant further research for more information on the extent to which traditional beliefs about disabilities influence male and female teachers in educating children with SEN and disabilities in the mainstream.

Another result was that the female teachers became more positive emotionally than their male counterparts when the severe to profound intellectual difficulties, deafness and blindness SEN categories were excluded from the analysis. Trendall (1989) had reported that more *female teachers* with lower qualifications underwent extreme stress. But in my analysis, no comparison was made between female trained teachers and female untrained teachers. Perhaps, the findings would have been different if this had been done. Consequently, further research is required for the purpose of:

- Investigating when such gender difference becomes evident using teachers' age, qualification and length of teaching experience.
- Exploring the area of concern or challenge, for example, finding out if the inclusion of children with severe to profound intellectual difficulties, deafness and blindness in the mainstream cause physical, academic, communication or social challenge (or perhaps a combination of them).

- Identifying statistical significant differences between trained and untrained female teachers and trained and untrained male teachers.

The study examined teacher's age in relation to attitudes to inclusion. Previous research had established that teachers who were young had better and more positive attitudes than the old or aged ones (Avramidis et al, 2000; Clough and Lindsay, 1991; Center and Ward, 1987). The results showed the contrary for both young and old teachers exhibited similar attitudes as far as the inclusion of children with SEN in the mainstream was concerned. In the discussion, it was pointed out that when governments throw their weight behind teachers and support inclusion with SEN policies and social inclusion (Norwich, 2001) differences do occur. However, there is the need for more information. Perhaps, a cross cultural study involving a few countries could be worthwhile.

Teacher qualification was investigated to see differences between the trained and untrained. Though research is inconclusive about the effect of teacher qualification on attitudes (Murphy, 1996; Gersten and Woodward, 1990), besides the mild to moderate and severe to profound intellectual difficulties, it came out from the result that no statistically significant difference was found for teachers who were trained and the untrained. In the discussion, the point was made that in Ghana there is little information on SEN in the school curricula and prospective teachers receive little or no training in SEN principles and methodologies as the report of Mawutor and Hayford suggests (Mawutor and Hayford, ISEC 2000 http://www.isec2000.org.uk/abstracts/papers_m/mawutor_1.htm)) which probably accounted for the lack of statistically significant difference. It can be predicted that with more information on SEN in the school curricula, the trained rather than the untrained would have more positive attitudes for including children with SEN in the mainstream. Nonetheless, this could be an area for further investigation.

However, the results showed that the untrained were generally more positive emotionally than the trained in teaching children with SEN. Trendall (1989) had found that more female teachers with *lower qualifications* underwent more extreme levels of stress. On the contrary, the results showed that the untrained were more positive. The trained were only encouraged and confident, but the untrained were encouraged, satisfied, confident and self-assured. It was said that teachers in Ghana graduate from their training institutions with little or no knowledge on SEN. Further, it was suggested that the untrained seemed to be more concerned about either keeping their jobs or

using their occupation as spring boards, hence, were less bothered about who they taught and what conditions they found in the teaching and learning environment. This area could be worth considering for further research to find out why the untrained rather than the trained had more positive emotions in teaching children with SEN.

It was also evident in the analysis that the exclusion of the severe to profound intellectual difficulties, deafness and blindness led to the trained being encouraged, satisfied, confident and self-assured. Seemingly, the negative emotions found for the trained teachers were due to the inclusion of these categories. Though it was established that the skills and resources for teaching these categories of children were lacking, more information is needed to identify if there are additional factors underpinning it.

The relationship between length of teacher experience in teaching and teacher attitudes to SEN was also analysed. Previous studies had shown that teachers who had taught for several years were less supportive of inclusion (Stephens and Braun, 1980; Forlin; 1995; Gilada et al; 2003) and Chen and Miller (1997) and Wisniewski and Gargiulo (1997) had reported that teachers are experiencing psychological and physiological symptoms of stress in their workplace. Trendall (1989) finds that teachers with five to ten years teaching experience were more highly stressed than older teachers with so much experience. A teacher's length of teaching experience did not appear to have had any influence on their attitude to the inclusion of children with SEN since there was no difference in the results between teachers who had taught for less than four years and those who had taught for four or more years. In addition to this, length of teaching experience did not appear to influence teachers' emotional reaction in teaching children with SEN. Irrespective of the number of years a teacher had taught, in teaching children with SEN, the results showed there was anxiety, dissatisfaction and worry. In the discussion the point was underscored that in Ghana inclusion as a policy is yet to be fully implemented en masse. Yet, further research may be necessary to examine the salient factors underpinning it. One major area would be the delineation of the age range. At what age can it be said that a teacher has less or more experience?

Concerning level of experience with children with SEN, that is teachers who had taught and those who had not taught children with SEN and attitudes to SEN, the results of the study showed that teachers who had taught children with SEN appeared to have been more positive towards their inclusion than those who had not taught

them. A difference was found between teachers who had taught and those who had not taught children with SEN. Similarly, there was evidence that teachers who had taught children with SEN appeared to be more positive emotionally than those who had not taught them. While those who had taught were encouraged, satisfied, confident and self-assured, those who had not were only encouraged. Though the finding gives credence to the studies of Hastings, Hewes, Lock and Witting (1996), Leyser et al (1994), Jones, Wint and Elliis (1990), Yuker (1988) as well as Fazio's (1989) and Fazio and Roskos-Ewoldsen's (1994) theory of attitude-to-behaviour process model, on the effects of direct contact, more information is needed. The notion that direct contact is sufficient for positive teacher attitudes is challenged without other factors such as 'time' and 'expertise' (Scruggs and Mastropieri, 1996). It is therefore imperative to explore other salient factors for a better understanding of the effects of direct contact on teacher attitudes to SEN.

One area where researchers continue to struggle with in attitude studies concerns the impact of knowledge on attitudes. It has attracted much 'considerable attention' (Avramidis, 2000, p. 280). Some say knowledge leads to positive attitudes (Vaidya and Zaslavsky, 2000; McKleskey, Henry and Axelrod, 1999; Dev and Scuggs, 1997), others think positive attitude could be generated without evidence of knowledge or training (Cornoldi, Terreni, Scruggs and Mastropieri, 1998). The investigation did not fully establish whether or not knowledge had influence for it was only in three-tenths of the cases that differences were noticed between those who knew and those who did not know how to teach. Additionally, in the analysis of teachers' emotional reaction, no difference was found between teachers who had knowledge and those who did not have knowledge in teaching children with SEN. They were positive in two but negative in three. The finding therefore supports further research in the area.

Organisational factors affecting teacher attitudes to inclusion

An area of concern to the research fraternity is the influence the location of a school has on teachers' attitudes. There appears to be a controversy in findings. Avramidis et al (2000) did not find any to be significant to respondents' attitude. However, O'Donoghue and Chalmers (2000) find that there was in their study on rural and remote areas of Western Australia. In Ghana, irrespective of the location of a school, the same curriculum is used. It was evident from the results that teachers in the Ashanti and Central Regions were more supportive of inclusion in mainstream than the

Northern Region. But the Northern Region had a higher percentage of teachers supporting segregation than the Ashanti and Central Regions. Additionally, within regions (that is urban, semi-urban and rural settings) only the Ashanti Region recorded statistically significant difference in some of the SEN categories. It is possible there were some factors underpinning some of the differences found. This makes it imperative for further research to understand why there were those differences despite the fact that throughout Ghana the same school curriculum is used.

Type of support system / service was also analysed in relation to teachers' attitudes to SEN. The importance of supporting teachers in regular education to meet the needs of children with SEN was underscored. But there are questions on the type of support system since they vary and are diverse. As far as the present data was concerned, there were three support services of which consultation appeared to be the most suitable for the teachers to include children with SEN in the mainstream. This was followed by special education teachers teaching alongside. The least support service the teachers identified was resource room service. It is difficult to explain why the teachers chose consultation first but not special education teachers teaching alongside or resource room service. Having been a teacher for some time in the country, I, like any other teacher, am aware that resource room service is not a common feature in the education system of the country. Most teachers were not familiar with resource room service. Besides, as was stated in the previous chapter, there was little or no interaction between regular education and special education to enable teachers in regular education to appreciate the benefits inherent in collaboration. Thus, there probably were some institutional constraints which could have affected the results since teachers' choice became dependent on consultation which they were most familiar with. This would mean that more information is needed to ascertain the type(s) of support system or services teachers would need.

Implications of the findings

The implications are done on the following headings: child characteristics; teacher characteristics, and organisational factors.

1. Child characteristics

The results showed that the characteristics of children with SEN affected teachers' attitudes to them. There are two important issues in this finding.

- The issue of child participation in classroom activities

A choice for some children to be segregated means that some children with SEN in regular education are being marginalised and not given opportunity to actively participate in classroom activities. Not participating actively makes the child passive in the teaching and learning environment, a situation which does not augur well for inclusion and learning. The Department for Education and Science (DfES, 2004) notes that inclusion transcends the type of school children attend. It is about the quality of their experience; how they are helped to learn, achieve and participate fully in the life of the school' (p. 25). The study therefore highlights the importance for teachers to respect the child's individuality to boost participation in classroom routines.

- The issue of written statements for assessment

The study further highlights the difficulties there are when there are some children with complex needs. This implies that written statements in the form of advice may be required from parents and/or guardians, classroom teachers, health personnel, psychologists, social services and any other agency that may be considered relevant in identifying and assessing the needs of children at risk of developmental disabilities. The statement can be in a form of questionnaire or checklists soliciting information about the academic, social, emotional, physical, and medical or health history of the child. While this may be perceived as novelty, there are major issues to deal with including institutional constraints, classroom workload, lack of personnel, and illiteracy. Ghana's economy is still infantile to support the much needed paper work often associated with writing of statements. In the classroom, the teachers are saddled with excessive workload due to high levels of teacher-pupil ratios (TPR) arising from large class sizes. Personnel in the health sector are few as many trained health personnel leave the country to seek for greener pasture elsewhere. High illiteracy levels leave most parents in the country unable to read and/or write to supply written statements to schools. These pose a threat to embarking on this venture. Despite these constraints, it can still be worth experimenting. Parents, for example, could be interviewed instead of asking them for written statements.

2. Teacher characteristics

Insofar as teachers would segregate children with sensory disabilities and severe to profound intellectual difficulties, it raises fundamental issues, for example:

- The issue of teachers' doubts about the efficacy and practicality of inclusion.

If teachers' choice of mainstream provision fails to include all children with SEN, then the notion of regular education having the capacity to combat discriminatory attitudes and to create welcoming communities as enjoined by the Salamanca Statement is challenged, hence elusive. It would imply that when children with SEN are placed in regular education, they would be frustrated and disillusioned and probably drop out of school since their needs may not be adequately met. Further, parents' dream of having a better future for their wards would not be met.

- The issue of teacher training

Pedagogical content knowledge is one of the key issues the study has highlighted if teachers' attitudes to inclusion can be positive and inclusion judged a success development. Admittedly, teacher efficiency is a function of the training they receive and how they are able to use the knowledge gained to accommodate all children including those with SEN. But as Okyere (2003) has rightly observed, there is very little on SEN in the curriculum of institutions in Ghana. Teachers are therefore unable to do much for children with SEN. It would therefore mean that the school or college curriculum should incorporate information on appropriate instructional methodologies to enable teachers to select materials and tasks suitable for all children to participate in classroom lessons.

- The issue of information on children with SEN

The study provided evidence that a substantial number of teachers had never taught children with SEN. Apart from this, there was evidence in the investigation that those who had taught children with SEN had positive attitude towards their inclusion. Not teaching them does not mean the children do not exist in the classrooms. They may be there but probably being ignored due to the teachers' lack of knowledge of what constitute special educational needs and who these children are. This makes it expedient to educate teachers about children with SEN. Teachers need information to develop positive school ethos that welcomes different ranges of children with SEN to help them make smooth transition in life. Information on SEN would enable the teachers to adopt interventions that are additional to or different from (DfES, 2001) what is required.

3. Organisational factors

- Issue of teaching and learning materials

Teachers' anxiety, dissatisfaction and worry in teaching children with SEN as was evident in the findings might have links to lack of appropriate and adequate teaching and learning materials in the schools and classrooms. Teaching and learning materials enable teachers to use the multi-sensory approach to teaching and learning. Multi-sensory approach is a technique which makes use of all the senses such as visual, auditory, kinaesthetic and tactile (Lerner, 2000). Teachers' level of confidence is likely to go up if they and their children with SEN have teaching and learning materials to use. Without these, the possibility exists for teachers to exclude some children they may find it difficult to teach.

- Issue of inter-agency co-operation and collaboration

The study has brought to the fore the issue of inter-agency participation or involvement. Regular education alone can hardly develop the potentialities of children with physical, academic, emotional or psychological, medical and nutritional and/or social needs. This means that other agencies such as health, psychology and counselling, social services, and of course education, must collaborate in meeting the children's needs. In teaming up, classroom teachers gain not only support, but also expertise for work. Team work can be effective if participating bodies or disciplines respect the contribution that each individual makes. It would therefore be required to spell out clearly the roles of each team member and to ensure effective communication among members to enhance their involvement.

- Issue of assessment procedures

In the discussion it was pointed out that in Ghana the medical model is used; the disability but not the child is emphasised. Kirk et al (2000) caution referral of children with SEN to special education services since the validity of standardised intelligence tests has become suspect (Hunt and Marshall, 2002). Kirk et al (2000) find that even with the school psychologist, some testing and interview may not be enough. This would require an urgent need for streamlining assessment practices for children with SEN particularly the type that emphasises the use of the medical or social model in the country. Using one or the other for placement decisions means many children

would be misdiagnosed resulting in inappropriate educational placement. Assessment must be multi-disciplinary to provide a more holistic picture of the child. A child's needs could be better met if there is precise and specific information about the nature of the needs. It is however suggested that prior to assessing a child's SEN; classroom teachers make efforts to help the child to overcome the challenge. If this does not work, the multi-disciplinary team can be informed through the special education needs co-ordinator (SENCo).

- Issue of funding special education

The results of the study underscore the importance of funding for inclusion to be successful. Money is needed for research and training, special education and related services, and to procure teaching and learning resources. When schools are under resourced, they are prevented from doing their best for children with SEN and to think the children belong to special schools where resources may be available.

- Issue of policies and regulations

While government policies and regulations may not be the solution to inclusion, we cannot underestimate their importance. Policies set the framework around which inclusion can be carried out. They spell out the role of governments, parent and child partnership, and inter-agency co-operation and collaboration. More important, policies indicate procedures to follow in assessing a child's special needs and how discrimination practices can be redressed. It is therefore imperative that inclusion matches with government policies and regulations.

- Issue of parental involvement and rights

Teachers and for that matter all who work with and for children with SEN must understand the emotional difficulties and/or agonies parents and families of the child with SEN go through and must be attentive to their feelings for they affect how they (that is parents and/or families) engage with schools. In the discussion, the point was made that teachers resort to punishment to control children's maladaptive behaviours. If teachers become monarchs in the classroom to punish children's emotional and behavioural difficulties, for example, or suggest that the child with SEN should be educated elsewhere, they (that is the teachers) take away the rights of the children and

their parents or families. This denies them equal opportunities. Parents have several roles to play in educating their children. According to Kirk et al (2000), they are valuable source of information to professionals; take part in teaching their children; and to reinforce learning. But they can be prevented from doing so if teachers do not see their children with SEN and disabilities to belong to regular education. This may suggest that the rights to due process (Hunt and Marshall, 2002) are not being clearly explained to parents and their children. By right to due process it is meant the right of parents to seek for hearing at the courts or tribunals against a decision of a school for their child.

Recommendations

On the basis of the foregoing, the following recommendations are made to boost teachers' attitudes to inclusion. It should be pointed out that the issues raised are not in a rank order.

Olukotun and Oke (2005) suggested strongly that all stakeholders in the education of the disabled should be consulted on how to move the inclusion project forward. I am fully in agreement with this view; there should be inter-agency collaboration and co-operation. The onus should not be on only one body or unit as it is the case for the Special Education Division in the country to develop inclusion. From the outset, there should be partnership at the local, regional and national levels. Other agencies such as health personnel, social services, psychologists and counsellors, educationists should come on board, participate and be seen to be actively involved in the process. Other agencies would be more committed if they see or find themselves as equal partners. In order to enhance participation, roles and responsibilities should be clearly and unambiguously assigned. In addition, meetings should be characterised by mutual respect and trust, while information is clearly communicated to members. The Special Education Division could then act as a co-ordinating body.

There should be measures to enhance teachers' beliefs and attitudes towards children with SEN. This could be achieved through teacher education. Disabilities are not to be seen as infectious (Okyere, 2003) nor should the belief be held that children with SEN have no abilities. Teachers ought to examine what others tell them about particular children. They should also avoid using the physical characteristics of a child to recommend referral to special school.

In order to boost teacher attitudes to inclusion, they should be assisted to develop and practice inclusion in their respective schools and institutions. How can teachers' attitudes to inclusion be wholly positive if they do not know what inclusion is? One way would be to develop an Index for Inclusion and distribute to as many schools as possible to provide information on the purpose of inclusion and ways to approach it. Teachers should know about children with SEN particularly the benefits there are in educating them together with their non-SEN peers in the same schools and classrooms. They need information on how to get other related services on board to for instance identify and assess SEN and to design individual educational plan (IEPs) where necessary. If teachers have information about inclusion and procedure(s) for including children with SEN, individual schools could develop principles and ethos and share practices that work. Further, there should be regular pre-and in-service training programmes, seminars, workshops and conferences on inclusion and teachers must be encouraged to attend them.

The importance of training and education in the development of positive teacher attitudes to the concept of inclusion and successful implementation of inclusion programmes has been underscored by McKleskey et al (1999) and Vaidya and Zaslavsky (2000). O'Donoghue and Chalmers (2000) indicate that teachers are ready to accept children with SEN when they have sufficient information about them and their management. Hence, it is recommended that the school curriculum for prospective teachers should incorporate sufficient information on SEN to encourage teachers to reflect on their attitudes to those with SEN (Golder et al, 2005). More important, teaching standards should be raised to enable teachers to make the necessary adaptations for all children including those with SEN to achieve academic excellence. This is a task for the Curriculum Research and Development Division (CRDD) of the Ministry of Education, Youth and Sports. They should do this not primarily for any legal reasons, but to whip up teachers' interest in SEN education for improvement in attitudes.

Children with SEN are likely to be referred to special schools if the medical model is used as main criterion for assessing SEN. Assessment should not be left in the hands of one person or individual neither should the type and nature nor the degree of a child's SEN alone form the basis of educational placement. A better picture of the child can only be seen if assessment is ecological and comprehensive enough to cover all the domains of the child's life. The interactive model proposed by Weddell (1978)

to determine the needs of the child should be used. Consequently, it is recommended that in assessing children's special educational needs, the multi-disciplinary team becomes the norm. The medical or health personnel as well as personnel of the social services, psychology and education should come together to assess the needs of children with SEN. It is absolutely the ideal while steps are taken to ensure that assessment is made cost effective. It is also suggested that parents should be involved as much as possible since they hold key information about their children. If assessment is comprehensive it facilitates decisions on the type of service(s) and educational placement for children with SEN and disabilities.

The difficulties posed by National policies to inclusion have been noted. Yet, they are helpful in winning local and national government's participation. Inclusion does not function when government's approach is rhetorical. Teachers are more likely to support inclusion if government and stakeholders show keen interest. Hence, there should be National policies to provide framework to inclusion. There is a National Disability Bill pending in the country's Parliament. I suggest a review of the Bill to take into account issues not anticipated. The rights of children and their parents and how other related services can be involved must be fully explained to them. Further, I recommend the development of a SEN Code of Practice and SEN Toolkit to clearly show how a child's SEN should be addressed and how parents can be involved. Though the Code may not give the nitty-gritty of what teachers must do, it could provide sufficient guidelines on how children with SEN could be included. There should be Central government, District Assemblies and Unit Committees' intervention. Government need to be proactive in intensifying education on SEN.

Another area that should demand our attention is the number of children with SEN, the type of SEN and how they are distributed across the country. This is important for decisions on educational placement and services take into account the child's characteristics. This would help tremendously in administrative decisions concerning the type of human and material resource - acquisition, development and distribution; and class size. At present there is no information on the number of children with SEN in the country. We do not know the type and degree of SEN and how they are distributed. Consequently, there should be a country-wide special needs analysis. In order to reduce cost there are a number of ways to obtain the information. As a short term measure, it is conceivable to fall on school head teachers when they are submitting their monthly or annual reports to the District and/or Regional Education

Offices. In considering this option, both regular and special schools should be included (see Appendix F for a sample of special educational needs questionnaire). In order to simplify analysis, districts and regions could collate their respective data for onward transmission to the headquarters of the Special Education Division. Alternatively, this information could be built into National Population Census in the long term.

Effective co-ordination of programmes and activities is important especially when many divisions are involved in meeting certain demands. The present situation where there is lack of collaboration and co-ordination between regular education and special education is detrimental to children with SEN and a block to inclusion. The country should consider fusing regular and special education. In this way collaboration between regular and special education can be facilitated. Florian (2005, p. 96) helpfully opines, the notion of inclusion challenges the idea of special education being separate from that which is provided by the majority of children. There should not be a rush to face out special schools since teachers do not have the skills and resources to include children with SEN. Inclusion is a process not a product to be consumed. Some children may need alternative instructional environments and teaching strategies which general education may not be able to provide.

Contribution to knowledge

This investigation has underscored the importance for researchers, communities and governments to consider the policy of inclusion not so much from the perspective of global agendas or telescope, but from national and most important local context. It means that in responding to the Salamanca Statement on the policy of inclusion, individual nations and localities should have opportunity to interpret and fashion policies and regulations as they may find suitable. At the same time, it makes it imperative to think of regional frameworks to avoid any form of regional fragmentation and inequalities based on geography.

As a country, Ghana is yearning to educate all children of school going age including those children with SEN and disabilities. The study has revealed what regular education teachers conceive practical in the process of developing and implementing the inclusion agenda. The current knowledge finds relevance as children with complex needs are not referred to programmes that eventually end up frustrating teachers, children with SEN and their parents and/or guardians. It stresses teacher preparation to take off.

As an individual researcher, the research experience has been thought-provoking and illuminating. Prior to the investigation, I had personally nurtured the erroneous belief that whatever was reported in western literature on inclusion was sacrosanct, hence could be transposed to Ghana's education system with ease. The notion, for instance, that teachers in Ghana differed from the western world regarding the type of children they would include or not include was hardly conceived. Consequently, my knowledge and understanding of interpreting global agendas to suit national and local contexts were less developed. By this knowledge the importance of testing theories before they are taken on board has been greatly underscored.

The Way ahead

There are some areas of the study that I would do differently if I were to start again. These are mainly in the methodology and include:

- Items to include in research instruments (that is questionnaire and interview schedules) for triangulation;
- Research sample;
- Layout of questionnaire items; and
- Administration of questionnaire.

On items to include in research instruments, I would have developed and pilot-tested interview guide first before developing questionnaire items. This could ensure that the two sets of instruments contain corresponding items in all sections for a more efficient triangulation. Again, I would not have included the Section D of the questionnaire instrument which assessed teachers' instructional strategies in spite of their relevance. This could be another area of research for information on how well children with SEN are included. In the Section C, there would have been a reduction of the number of bi-polar emotional reactions from five to three to increase response rate. The layout of questionnaire items in Section C would have been in a form of rating scale instead of the dichotomous type of response to allow teachers to indicate different levels of opinions. On research sample, I would have extended the research sample to include teachers in special schools for information on what they think about inclusion. Lastly, the self-administration of instruments was physically and emotionally exhausting and financially expensive despite the high return rate. The mailing system or use of research assistants would have been less stressful.

REFERENCES

Adams, J. S. (2003) Mental retardation, in B.A, Okyere and J. S. Adams (Eds.). *Introduction to special education: an African perspective.* Accra: Adwinsa Publications (Gh) Ltd, pp. 265-292.

Adams, J., Swain, J. and Clark, J. (2000) What's so special? Teachers' models and their realisation in practice in segregated schools. *Disability and Society,* 15, 2, 233-245.

Adelman, H. S. (1996) Appreciating the classification dilemma, in W. Stainback and S. Stainback (Eds.). *Controversial issues confronting special education: divergent perspectives* (2nd ed.). Boston: Allyn and Bacon, pp. 96-111.

Ainscow, M. (1995) Education for all: making it happen. *Support for Learning*, 10, 4, 147-157.

Ainscow, M. (1997) Towards inclusive schooling. *British Journal of Special Education*, 24, 1, 3-6.

Ainscow, M. (1998) Would it work in theory? Arguments for practitioner and theorising in the field in London, in C. Clark, A, Dyson and A. Millward (Eds.). *Towards Inclusive Schools?* London: David Fulton, pp. 147-163.

Ainscow, M. (1999) *Understanding the development of inclusive schools*. London: Falmer Press.

Ainscow, M. (2000) Using research to encourage the development of inclusive practice, in P. Farrell and M. Ainscow (Eds.). *Making Special Education Inclusive*, London: David Fulton Publishers, pp. 25-37.

Ainscow, M. (2005) Developing inclusive education systems: what are the levers for change? *Journal of Educational Change*, 6, 2, 109-124.

Ainscow, M., Howes, A., Farrell, P. and Frankham, J. (2003) Making sense of the development of inclusive practice. *European Journal of Special Needs Education*, 18, 2, 227-242.

Ajzen, I. (1988) *Attitudes, personality and behaviour.* Milton Keynes: Open University Press.

Akyeampong, K. (2003) *Teacher training in Ghana-does it count?* London: DFID Educational Papers Series.

Alghazo, E. M. and Gaad, E. E. N. (2004) General education teachers in the United Arab Emirates and their acceptance of the inclusion of students with disabilities. *British Journal of Special Education*, 31, 2, 94-98.

Amedahe, F.K. (2001) Combining teacher assessment scores with external examination scores for certification: comparative study of four statistical models. *Ife Psychologia,* 9, 1, 12-34.

American Psychiatric Association (1994) *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.). Washington, D.C.: American Psychiatric Association. Anderson, G. (1998) *Fundamentals of educational research* (2nd ed.). London: Falmer Press.

Casely-Hayford, Leslie and Lynch, Paul. *ICT based solutions for special educational needs in Ghana. A strategic planning document for use by the Special Education Division (SpED) to integrate ICT to support the delivery of the Ghana Education Service's core objectives*. Annex 4: Statistics on Public Special Schools in Ghana. An Imfundo KnowledgeBank Initiative. 23 November, 2003. Internet WWW page, at URL:
<http://imfundo.digitalbrain.com/imfundo/web/papers/sen_phase2/Annex%204.doc> (03 September 2006).

Artiles, A. and Dyson, A. (2005) Inclusive education in the globalisation age the promise of comparative cultural-historic analysis, in D. Mitchell (Ed.). *Contextualizing Inclusive Education evaluating old and new international perspectives.* London: Routledge, pp. 230-252.

Ary, D., Jacobs, L. C. and Razavieh, A. (1985) *Introduction to research in education* (3rd ed). New York: Holt, Rinehart and Winston.

Association for the Development of Education in Africa. Ghana Education. *Brief history of educational development in Ghana.* Internet WWW page, at URL: <http://www.adeanet.org/wgesa/en/doc/ghana/chapter_2.htm> (20 May, 2004).

Association of Persons with Severe Handicaps (1989) *Association of Persons with Severe Handicaps resolutions and policy statements.* Seattle: TASH.

Attfield, R. and Williams, C. (2003) Leadership and inclusion: a special school perspective. *Leadership and Inclusion,* 30, 1, 28-33.

Audit Commission (2002) *Statutory assessments and statements of SEN: in need of review?* London: Audit Commission.

Avoke, Mawutor and Hayford, Samuel (ISEC, 2000) *Promoting Inclusive education in Basic Schools in Winneba Circuit: the role of school attachment programme.* University of Manchester.24-28 July 2000. Internet WWW page, at URL: <http://www.isec2000.org.uk/abstracts/papers_m/mawutor_1.htm> (03 May 2004.

Avoke, M. (2001) Some historical perspectives in the development of special education in Ghana. *European Journal of Special Needs Education,* 16, 1, 29-40.

Avoke, M. (2002) Models of disability in the labelling and attitudinal discourse in Ghana. *Disability and Society,* 17, 7, 769-777.

Avramidis , E., and Norwich, B. (2002) Teachers' attitudes towards integration / inclusion: a review of literature. *European Journal of Special Needs Education*, 17, 2, 129-148.

Avramidis , E., Bayliss, P. D. and Burden, R. (2000) Student teachers' attitude towards the inclusion of children with special educational needs in the ordinary school. *Teaching and Teacher Education*. 16, 3, 277-293.

Bacon, E. H. and Schulz, J. B. (1991) A survey of mainstreaming practices. *Teacher Education and Special Education*, 14, 2, 144-149.

Baker, E. T., Wang, M. C. and Walberg, H. (1994) The effects of inclusion on learning. *Educational Leadership*, 52, 4, 33-35.

Barnatt, S. N. and Kabzems, V. (1992) Zimbabwe teachers' attitudes towards integration of pupils with disabilities into regular classrooms. *International Journal of Disability, Development and Education*, 39, 2, 135-146.

Baron, R. A. and Byrne, D. (2000) *Social Psychology* (9th ed.). Boston: Allyn and Bacon.

Barthorpe, T. and Visser, J. (1991) *Differentiation: your responsibility – an in-service pack for staff development*. Stafford: NARE.

Bartolome, L. I. (1994) Beyond the methods fetish: towards a humanising pedagogy. *Harvard Education Review*, 54, 2, 173-194.

Barton, L. and Oliver, M. (1992) Special needs: personal trouble or public issue, in M. Arnot and L. Barton (Eds.). *Voicing concerns: sociological perspectives on contemporary education reforms.* London: Triangle Books, pp. 67-92.

Barton, Len. *Special Educational Needs: an alternative look. (A Response to Warnock M. 2005: Special\ Educational Needs – A New Look)*. Internet WWW page, at URL: <http://www.leeds.ac.uk/disabilitystudies/archiveuk/barton/Warnock.pdf> (20 October 2006.)

Batshaw, M. L. (1997) *Children with disabilities* (4th ed.). Baltimore: Paul Brookes Publishing Co.

Bee, H. and Boyd, D. (2004) *The developing child* (10th ed.). Boston: Pearson Education Inc.

Beh-Pajooh, A. (1992) The effect of social contact on college students' attitudes toward students with severe mental handicaps and their educational integration. *European Journal of Special Needs Education*, 7, 2, 87-102.

Best, J. W. and Kahn, J. V. (1989) *Research in Education* (6th ed.). Englewood-Cliffs: Prentice Hall.

Best, J. W. (1970) *Research in education*. Englewood-Cliffs: Prentice-Hall.

Beveridge, S. (1999) *Special educational needs in schools* (2nd ed.). London: Routledge.

Bober, S. and Grolnick, W. (1995) Motivational factors related to differences in self-schemas. *Motivation and Emotion*, 19, 307-327.

Booth, T. and Ainscow, M. (1998) *From them to us, an international study of inclusion*. London: Routledge.

Booth, T., Ainscow, M., Black- Hawkins, K., Vaughan, M. and Shaw, L. (2000) *The index for inclusion: developing learning and participation in schools*. Bristol: Centre for Studies on Inclusive Education.

Booth, Tony and Ainscow, Mel. *Breaking down the barriers: the Index for Inclusion*. (2000) Centre for Studies on Inclusive Education (CSIE). CSIE home page. Internet WWW page, at URL: <http://inclusion.uwe.ac.uk/csie/index-inclusion-summary.htm> (05 June, 2004).

British Educational Communications and Technology (Becta) (2003) *What the research says about ICT supporting special educational needs (SEN) in inclusion.* Internet WWW page, at URL: <www.becta.org.uk/research> (20 October 2006.)

Bronfenbrenner, U. (1989) Ecological systems theory, in R. Vasta (Ed.). *Annals of child development: Vol 6. Six theories of child development: revised formulations and current issues*. Greenwich: Jai Press, pp. 187-249.

Calberg, C. and Kavale, K. (1980) The efficacy of special versus regular class placement for exceptional children: a meta-analysis. *The Journal of Special Education*, 14, 295-309.

Caldwell, T., Todaro, A. W., and Gates, A. J. (1988) *Community provider's guide: an information outline for working with children with special needs*. New Orleans: Children's Hospital

Cartwright, G. P., Cartwright, C. A. and Ward, M. F. (1995) *Educating special learners* (4th ed.). Belmont: Wadsworth Publishing Company.

Casely-Hayford, Leslie and Lynch, Paul. *ICT Based Solutions for Special Educational Needs in Ghana*. 23 November, 2003. Internet WWW page, at URL: <http://imfundo.digitalbrain.com/imfundo/web/papers/sen_phase2/SEN%20PHASE%204.doc> (20 May, 2004).

Center, Y. and Ward, J. (1987) Teachers' attitude towards the integration of disabled children into regular schools. *Exceptional Child*, 34, 41-56.

Centre for Studies on Inclusive Education (CSIE) (2002) *Inclusion information guide: working towards inclusive education*. Bristol: CSIE.

Centre for Studies on Inclusive Education (CSIE) (2005) *Memorandum: Evidence to the Education and Skills Committee Inquiry into Special Educational Needs*. Bristol: CSIE.

Chen, M. R. and Miller, G. (1997) *Teacher stress: a review of the international literature*. ERIC Document, 410187.

Chimedza, R. (1998) The cultural politics of integrating deaf students in regular schools in Zimbabwe. *Disability and Society*, 13, 4, 493-502.

Clark, C. M. and Peterson, P. L. (1986) Teachers' thought processes, in M. Wittrock (Ed.). *Handbook of research in teaching* (3rd ed.). New York: Mac Millan, pp. 255-296.

Clough, P. and Lindsay, G. (1991) *Integration and the support service*. Windsor: NFER-Nelson.

Cohen, L., Manion, L. and Morrison, K. (2004) *Research methods in education* (5th ed.). London: Routledge Falmer.

Coie, J. D. (1996) Prevention of violence and antisocial behaviour, in R.D. Peters and R. J. McMahon (Eds.). *Preventing childhood disorders, substance abuse and delinquency*. London: Sage, pp. 1-18.

Conti-Ramsden, G. and Windfuhr, K. (2002) Productivity with word order and morphology: a comparative look at children with SLI and children with normal language abilities. *International Journal of Language and Communication Disorders*, 37, 1, 17 – 30.

Cooper, P., Smith, C. and Upton, G. (1994) *Emotional and behavioural difficulties: theory to practice*. London: Routledge.

Corbett, J. (1996) *Bad-Mouthing: the language of special needs*. London: Falmer Press.

Cornoldi, C., Alessandra, T., Scruggs, T. E. and Mastropieri, M.A. (1998) Teacher attitudes in Italy after twenty years of inclusion. *Remedial and Special Education*, 19, 9, 350-356.

Council for Exceptional Children (1996) Inclusion-where are we today? *Today*, 3, 1, 5-15.

Croll, P. (2001) Teacher contact with parents of children with special educational needs: a comparison over two decades. *Journal of Research in Special Educational Needs* 1, 2.

Davis, P. and Florian, L. (2004) *Teaching strategies and approaches for pupils with special educational needs: a scoping study.* Nottingham: DfES.

Deiner, P. L. (2005) *Resources for educating children with diverse abilities: birth through eight* (4th ed.). New York: Thomson Delmar Learning.

Denhoff, E. (1975) Medical aspects, in W. M. Cruickshank (Ed.). *Cerebral palsy, a developmental disability* (3rd ed.). Syracuse: Syracuse University, pp. 29-72.

Department for Education and Employment (DfEE) (1994) *The education of children with emotional and social difficulties (Circular 9/94).* London: DfE.

Department for Education and Employment (DfEE, 1997) *Excellence for all children: meeting special educational needs.* London: Department of Education and Employment Publications.

Department for Education and Employment (DfEE) (2000) *SEN Code of practice on the identification and assessment of pupils with special educational needs.* London: DfEE Publications.

Department for Education and Skills (2001) *Special educational needs code of practice.* London: DfES.

Department for Education and Skills (2001) *Inclusive schooling: children with special educational needs.* London: DfES.

Department for Education and Skills (2003) *Every Child Matters - the Green Paper.* London: DfES.

Department for Education and Skills (2004) *Removing barriers to achievement: the government's strategy for SEN.* London: DfES.

Department of Education (1997) *Quality education for all: overcoming barriers to learning and development. Report of the National Commission on Special Needs Education and Training (NCSNET) and National Committee on Education Support Services (NCESS).* Pretoria: Government Printer.

Department of Education and Science (1978) *Special Educational Needs* (The Warnock Report). London: HMSO.

Desmet. Pieter, M. A. <p.m.a.desmet@io.tudelft.nl>. Measuring emotions: development and application of an instrument to measure emotional responses to products. To be published in M. A. Blythe, A. F. Monk, K. Overbeek, and P. C. Wright (Eds.). *Funology: from usability to enjoyment.*. Internet WWW page, at URL: <http://static.studiolab.io.tudelft.nl/gems/desmet/papermeasuring.pdf> (05 September 2006).

Dockrell, J. and Lindsay, G. (2000) Meeting the needs of children with specific speech and language difficulties. *European Journal of Special Needs Education*, 15, 1, 24-41.

Dyson, A. (2005) Philosophy, politics and economics? The story of inclusive education in England, in D. Mitchell (Ed.). *Contextualizing inclusive education evaluating old and new international perspectives*. London: Routledge, pp. 63-88.

Ellins, J. and Porter, J. (2005) Departmental differences in attitudes to special educational needs in the secondary school. *British Journal of Special Education*, 32, 4, 188-195.

Elliot, D. and McKenney, M. (1998) Four inclusion models that work. *Teaching Exceptional Children*, 30, 4, 54–58.

Emanuelsson, I., Haug, P. and Persson, B. (2005) Inclusive education in some Western European countries: different policy rhetorics and school realities, in D. Mitchell (Ed.). *Contextualizing inclusive education evaluating old and new international perspectives.* London: Routledge, pp. 114-138.

Esposito, Mary, K. *Teacher Views Concerning Inclusion in General and Inclusion in Specific*. Journal of Integrative Psychology. Internet WWW page, at URL: <http://www.integrativepsychology.org/articles/vol4_article3.htm> (03 September 2006.)

Fang, Z. (1996) A review of research in teacher beliefs and practices. *Educational Review,* 38, 1, 47-65.

Farrell, M. (2004) *Special educational needs: a resource for practitioners.* London: Paul Chapman Publishing.

Farrel, P. and Ainscow, M. (2002) Making special education inclusive: mapping the issues, in P. Farrel and M. Ainscow (Eds.). *Making special education inclusive*. London: David Fulton Publishers, pp. 1 – 12.

Fazio, R. H. and Roskos-Ewoldsen, D. R. (1994) Acting as we feel: when and how attitudes guide behaviour, in S. Shavitt and T. C. Brock (Eds.). *Persuasion*. Boston: Allyn and Bacon, pp. 71-93.

Fazio, R. H. (1986) How do attitudes guide behaviour?, in R. M. Sorrentino and E. T. Higgins (Eds.). *Handbook of motivation and cognition: foundations of social behaviour*. New York: Guilford, pp. 204-243.

Fazio, R. H. (1989) On the power and functionality of attitudes: the role of attitude accessibility, in A. R. Pratkanis, S. J. Breckler, and A. G. Greenwald (Eds.). *Attitude, structure and function.* Hillsdale: Lawrence Erlbaum Associates, pp. 153-180.

Fazio, R. H. (1990) Multiple processes by which attitudes guide behaviour: the model as an integrative framework. *Advances in Experimental Social Psychology*, 23, 75-109.

Festinger, L. (1957) *A theory of cognitive dissonance.* Stanford: Stanford University Press.

Fetterman, D. M. (1989) *Ethnography: step by step.* Thousand Oaks: Sage.

Fishbein, M. and Ajzen, I. (1975) *Belief, attitude, intention and behaviour: an introduction to theory and research.* Reading: Addison-Wesley.

Fiske, S. T. and Taylor, S. E. (1984) *Social cognition.* London: Addison-Wesley Publishing Company.

Flem, A., Moen, T. and Gudmunsdottir, S. (2004) Towards inclusive education schools: a study of inclusive education in practice. *European Journal of Special Needs Education*, 19, 1, 85-98.

Florian, L. (1998) An examination of the practical problems associated with the implementation of inclusive education policies. *Support for Learning*, 13, 3, 105-108.

Florian, L. (2002) The more things change the more they stay the same? A response to the Audit Commission's report on statutory assessment and statements of SEN. *British Journal of Special Education*, 29, 4, 164-169.

Florian, L. (2003) Editorial. *Journal of Research in Special Educational Needs*, 3, 2, 102-103.

Florian, L. (2005) 'Inclusion', 'special needs' and the search for new understandings. *Support for Learning*, 20, 2, 96-98.

Forlin, C. (1995) Educators' beliefs about inclusive practices in Western Australia. *British Journal of Special Education*, 22, 4, 179-185.

Foster, P. (1996) *Observing schools: a methodological guide.* London: Paul Chapman Publishing Ltd.

Fowler, R. M. (1994) Introduction to the professions, in D. M. Fred (Ed.). *Introduction to communication sciences and disorders*. San Diego:Singular Publishing Group, Inc.

Fraenkel, J. R. and Wallen, N. E. (1993) *How to design and evaluate research in education* (2nd ed.). New York: Mc Graw-Hill Inc.

Frankfort-Nachmias, C. and Nachmias, D. (1992) *Research methods in the social sciences*. London: Edward Arnold.

Fraser, B., Hensinger, R. N. and Phelps, J. (1990) *Physical management of multiple handicaps*. Baltimore: Paul H. Brookes.

Frederick, K. (2005) Let's take the special out of special needs, in *Times Educational Supplement*, 15-07-05, p. 19.

Frederickson, N., Osborne, L. A. and Reed, P. (2004) Judgments of successful inclusion by education personnel. *Educational Psychology*, 24, 3, 263-290.

Gaad, E. (2001) Educating children with Down's syndrome in the United Arab Emirates. *British Journal of Special Education*, 28, 4, 195-203.

Gadagbui, G. (1998) *Education in Ghana and special needs children*. Accra: City Publishers.

Gargiulo, R. M. and Kilgo, J. L. (2000) *Young children with special needs: an introduction to early childhood special education.* Clifton Park: Thomson / Delmar Learning.

Garver-Pinhas, A. and Schmelkin, L. P. (1989) Administrators' and teachers' attitudes towards mainstreaming. *Remedial and Special Education*, 10, 38-43.

Gersten, R. and Woodward, J. (1990). Rethinking the regular education initiative: focus on the classroom teacher. *Remedial and Special Education*, 11, 3, 7-16.

Ghana. *The Constitution*. Internet WWW page, at URL: <http://www.ghanareview.com/parlia/Gconst5.html> (20 May, 2004).

Ghana Education Service (2003) Enrolment *and Staffing Data*. Accra: (unpublished).

Ghana Education Service, the Basic Education Division (2004) *The development of education national report of Ghana*, for presentation at the forty-seventh session of the International Conference on Education (ICE). Geneva: (unpublished).

Ghana Today. *High institutions urged to research into child disability*. Ghana Today on the Web. Internet WWW page, at URL: <http://www.ghanatoday.com/index.php?option=news&task=viewarticle&sid=18939> (06 September 2006).

Giangreco, M. F. (1997) Key lessons learned about inclusive education: summary of the 1996 Schonell memorial lecture. *International Journal of Disability*, 44, 3, 193-206.

Gilada, A., Reiter, S. and Leyser, Y. (2003) Principals' views and practices regarding inclusion: the case of Israeli elementary school principals. *European Journal of Special Needs Education*, 18, 3, 355-369.

Golafshani, N. (2003) Understanding reliability and validity in quantitative research. *The Qualitative Report*, 8, 4, 597-607.

Golder, G., Norwich, B. and Bayliss, P. (2005) Preparing teachers to teach pupils with special educational needs in more inclusive schools: evaluating a PGCE development. *British Journal of Special Education*, 32, 2, 92-99.

Gray, J. (1997) Physical education, in K. Ashcroft and D. Palacio (Eds.). *Implementing the primary curriculum: a teachers' guide*. London: The Falmer Press, pp. 154-160.

Gross, J. (2002) *Special educational needs in the primary school a practical guide* (3rd ed.). Buckingham: Open University Press.

Gyimah, E. K. (2000) Identification and assessment for children with disabilities in Ghana. *Ife Psychologia*, 8, 2, 74-83.

Gyimah, E. K. (2001) Service to the mentally challenged: the case of twin-city special school for the mentally handicapped, Sekondi-Takoradi. *Ife Psychologia*, 9, 2, 127-134.

Harrison, F. and Crow, M. (1993) *Living and learning with blind children: a guide for parents and teachers of visually impaired children.* Toronto: University of Toronto Press.

Hastings, R. P., Hewes, A., Lock, S. and Witting, A. (1996) Do special educational needs courses have any impact on student teachers' perceptions of children with severe learning difficulties? *British Journal of Special Education* 23, 3, 139-144.

Heward, L. (1996) *Exceptional children: an introduction to special education* (5th ed.). Englewood Cliffs: New Jersey Publishers.

Hewett, D. and Nind, M. (1992) Returning to the basics: a curriculum at Harpenbury Hospital School, in T. Booth, W. Swann, M. Masterton and P. Potts (Eds.). *Curricular for diversity in education,* London: Open University Press/Routledge, pp. 200-210.

Homan, R. (2001) The principle of assumed consent: the ethics of gate keeping. *Journal of Philosophy of Education*, 35, 3, 329-343.

Hunt, N. and Marshall, K. (2002) *Exceptional children and youth* (3rd ed.). Boston: Houston Mifflin Company.

IDEA (1997) *Individual with Disabilities Education Act (IDEA).* 20 U.S. Congress, 33, 1400-1491.

Institute for Education Policy Studies. *Enhancing participation, expanding access: the double axis of sustainable educational development. Directions in policy and practice for educating all children.* Internet WWW page, at URL: <http://www.edstudies.net/resources/enhancing/part_b.html> (20 October 2004).

Jimmy, Wales, Wikipedia. *Sampling error*. The Free Encyclopedia. Internet WWW page, at URL: <http://en.wikipedia.org/wiki/Sampling_error> (05 September 2004).

Jones, P. (2005) Teachers' views of their pupils with profound and multiple learning difficulties. *European Journal of Special Needs Education*, 20, 4, 375-385.

Jones, R., Wint, D. and Ellis, N. (1990) The social effects of stereotyped behaviour. *Journal of Mental Deficiency Research*, 34, 261-268.

Jongmans, M. J. (2005) Early identification of children with developmental coordination disorder, in D. A. Sugden and M. E. Chambers (Eds.). *Children with developmental coordination disorder.* London: Whurr Publishers (pp. 155-167).

Jupp, K. (1992) *Everyone belongs*. London: Souvenir Press.

Jusczyk, E. W. (1997) *The discovery of spoken language*. Cambridge: MIT Press.

Kagan, D. M. (1992) Implications of research on belief. *Educational Psychologist*, 27, 10, 65-90.

Kaplan, P. (1996) *Pathways for exceptional children, school, home, and culture.* Minneapolis/St. Paul: West Publishing Co.

Kilgo, J., Danaher, J., McLean, M., McCormick, K., Smith, B. and Schakel, J. (1996) *Developmental delay as an eligibility category.* Denver: Division for Early Childhood.

Kirk, S. A., Gallagher, J. J. and Anastasiow, N. J. (2000) *Educating exceptional children* (9th ed.). Boston: Houghton Mifflin Company.

Kivirauma, J., Klemeliä, K. and Rinne, R. (2006) Segregation, integration and inclusion-the ideology and reality in Finland. *European Journal of Special Needs Education,* 21, 2, 117-133.

Klinger, J. K., Vaughn, S., Hughes, M. T., Schumm, J. S. and Erlbaum, B. (1998) Outcomes for students with and without learning disabilities in inclusive classroom. *Learning Disabilities Research and Practice*, 13, 3, 153-161.

Koutselini, M. and Michaelidou, A. (2004) Rationale of Greece-Cyprus unified education: a teachers' and parents' beliefs study. *Educational Research and Evaluation*, 10, 2, 183-203.

Kunc, N. (1992) The need to belong: rediscovering Maslow's hierarchy of needs, in R. A. Villa, J. S. Thousand, W. Stainback and S. Stainback (Eds.). *Restructuring for caring and effective education.* Baltimore: Paul H. Brookes, pp. 25-40.

Lackaye, T. (1997) *General education teachers' willingness to use and current use of academic interventions for students with learning disabilities.* New York: Columbia University (Unpublished dissertation).

Law, J., Lindsay, G., Peacy, N., Gascoigne, M., Soloff, N., Radford, J. and Band, S. (2001) Facilitating communication between education and health services: the provision for children with speech and language needs. *British Journal of Special Education*, 28, 3, 133-137.

LeRoy, B. and Simpson, C. (1996) Improving student outcomes through inclusive education. *Support for Learning*, 11, 32-36.

Lerner, J. (2000) *Learning disabilities theories, diagnosis, and teaching strategies* (8th ed.). Boston: Houston Mifflin Company.

Lewis, J. (2000) Let's remember the 'education' in inclusive education. *British Journal of Special Education*, 27, 4, 202-202.

Lewis, A. and Norwich, B. (1999) Mapping a pedagogy for special educational needs. *Research Intelligence*, 69, 6-8.

Lewis, R. B. and Doorlag, D. (1995) *Teaching special students in the mainstream.* Englewood Cliffs: Prentice Hall Inc.

Leyser, Y., Kapperman, G. and Keller, R. (1994) Teacher attitudes toward mainstreaming: a cross-cultural study in 6 nations. *European Journal of Special Needs Education,* 9, 1-15.

Life Science Glossary. Everythingbio. *Definition of sampling error.* Internet WWW page, at URL: <http://www.everythingbio.com/glos/definition.php?word=sampling+error> (05 September 2006).

Likert, R. (1932) *A technique for the measurement of attitudes.* New York: Archives of Psychology.

Lindsay, G. (2003) Inclusive education: a critical perspective. *British Journal of Special Education,* 30, 1, 3-12.

Lipsky, D. K. and Gartner, A. (1996) Inclusion: what is, what it's not, and why it matters. *Exceptional Parent*, 36-38.

Lomofsky, L. and Lazarus, S. (2001) South Africa: first steps in the development of an inclusive education system. *Cambridge Journal of Education*, 31, 3, 303-317.

Luckasson, R., Coulter, D. L., Polloway, E. A., Reiss, S., Schalock, R. L., Snell, M. E., Spitalnik, D. M. and Stark, J. A. (1992) *Mental retardation: definition, classification and systems of support.* Washington, D. C.: AAMR.

Lunt, I. and Norwich, B. (1999) *Can effective schools be inclusive schools?* London: Institute of Education.

Madden, N. A. and Slavin, R. E. (1983) Mainstreaming students with mild handicaps: academic and social outcomes. *Review of Educational Research*, 53, 519-569.

Manstead, A. S. R. (1996) Attitudes and behaviour, in G. R. Semin and K. Fiedler (Eds.). *Applied Psychology.* London: Sage, pp. 1-29.

McLeskey, J., Henry, H. and Axelrod, M. I. (1999) Inclusion of students with learning disabilities: an examination of data from reports to Congress. *Exceptional Children*, 66, 55-66.

McManus, M. (2006) Discourses of indiscipline: an informal Hobbesian riposte to Cate Watson. *Emotional and Behavioural Difficulties*, 11, 1, 25-30.

McNamee, M. (2001) Introduction: whose ethics, which research? *Journal of Philosophy of Education*, 35, 3, 309-327.

McWilliams, H. O. A. and Kwamena-Poh, M. A. (1975) *The development of education in Ghana.* London: Longman Group Ltd.

Meek, G. A. (1994) *The development of attitude formation to physical activity in children of different physical ability* Leeds: School of Education (unpublished dissertation).

Meijer, C. J. W. and Stevens, L. M. (1997) Restructuring special education provision, in S. J. Pijl, C. J.W. Meijer and S. Hegarty (Eds.). *Inclusive education: a global agenda.* London: Routledge, pp. 115-129.

Metro (2006) Courts have 'too many children' Tuesday, August 22, p. 2.

Miller, George, A. *WordNet Search - 2.1* 2. Cognitive Science Laboratory, Princeton University. Internet WWW page, at URL: <http://wordnet.princeton.edu/perl/webwn?s=model> (02 September 2006).

Mitchell, D. (2005) Introduction; sixteen propositions on the contexts of inclusive education, in D. Mitchell (Ed.). *Contextualizing inclusive education evaluating old and new international perspectives.* London: Routledge, pp. 230-252.

Mithaug, D.E.(1998) The alternative to ideological inclusion, in S.J Vitello and D.E. Milthaug (Eds.). *Inclusive schooling: national and international perspectives*. Mahwah: Lawrence Erlbaum Associates, pp. 1-23.

Moltó, M. C. C. (2003) Mainstream teachers' acceptance of instructional adaptations in Spain. *European Journal of Special Needs Education*, 18, 3, 311-332.

Morrison, K. R. B. (1993) *Planning and accomplishing school-centred evaluation.* Norfolk: Peter Francis Publishers.

Murphy, D. M. (1996) Implications of inclusion for general and special education. *Elementary School Journal*, 96, 469-493.

Mushoriwa, T. (2001) A study of the attitudes of primary school teachers in Harare towards the inclusion of blind children in regular classes. *British Journal of Education*, 28, 3, 142-147.

Mussen, P. H., Conger, J. J., Kagan, J. and Huston, A. C. (1984) *Child development and personality* (6th ed.). New York: Harper and Row Publishers.

Myers, Margaret, Knowledgerush Search. *Belief.* Internet WWW page, at URL: <http://www.knowledgerush.com/kr/encyclopedia/Belief/> (05 September 2004.)

Naicker, M. N. (2005) Inclusive education in South Africa an emerging pedagogy of possibility, in D. Mitchell (Ed.). *Contextualizing inclusive education evaluating old and new international perspectives.* London: Routledge, pp. 230-252.

National Statistics (2003) *Statistics of education: special educational needs in England: January 2003.* London: The Stationery Office.

Nind, M., Benjamin, S., Sheehy, K., Collins, J. and Hall, K. (2004) Methodological challenges in researching inclusive school cultures. *Educational Review*, 53, 3, 259-270.

Nind, M. (2000) Teachers understanding of interactive approaches in special education. *International Journal of Disability, Development and Education*, 47, 2, 183-199.

Norwich, B. (1994) *Segregation and inclusion: English LEA statistics 1988-92.* Bristol: Centre for Studies on Inclusive Education.

Norwich, B., Goodchild, L. and Lloyd, S. (2001) Some aspects of the Inclusion Index in operation. *Support for Learning*, 16, 4, 156-161.

Norwich, B. and Lewis, A. (2001) Mapping pedagogy for special educational needs. *British Educational Research Journal*, 27, 3, 313-329.

Obi, F. B. and Mensah, T. (2005) Inclusive education: the challenges of the 21st century, Nigerian-Ghanaian teacher. *African Journal of Special Educational Nee*ds, 4, 1, 19-27.

O'Donoghue, T. A. and Chalmers, R. (2000) How teachers manage their work in inclusive classrooms. *Teaching and Teacher Education*, 16, 889-904.

Office for National Statistics, United Kingdom census. *The definition of urban areas.* Internet WWW page, at

URL:<http://www.statistics.gov.uk/census2001/pdfs/urban_area_defn.pdf> (5 August 2004).

Okyere, B.A. (2003) Trends in special education, in B.A, Okyere and J. S. Adams (Eds.). *Introduction to special education: an African perspective.* Accra: Adwinsa Publications, pp. 43-74.

Okyere, B.A. (2003) Issues in educating exceptional children in Africa, in B.A, Okyere and J. S. Adams (Eds.). *Introduction to special education: an African perspective.* Accra: Adwinsa Publications, pp. 29-41.

Olukotun, J. O. and Oke, E. O. (2005) Inclusive education for children with special needs as a component of universal basic education (UBE) programme in Nigeria: a pointer to other developing nations. *African Journal of Special Educational Nee*ds, 4, 1, 57-62.

Oppeinheim, A. N. (1992) *Questionnaire design, interviewing and attitude measurement.* London: Pinter Publishers Ltd.

Patton, M. Q. (1980) *Qualitative evaluation methods* (2nd ed.). London: Sage Publications.

Pearson, S. (2005) 'SEN - a politically correct phrase to replace terms such as disabled?' A study of the views of students entering a secondary PGCE course. *Support for Learning*, 20, 1, 17-21.

Peetsma, T., Vergeer, M., Roeleveld, J. and Karsten, S. (2001) Inclusion in education: comparing pupils' development in special and regular education. *Educational Review*, 53, 2, 125-135.

Peters, S. A. (2003) *Inclusive education: achieving education for all by including those with disabilities and special educational needs*. Washington, D. C.: The World Bank.

Petty, R. E. and Cacioppo, J. T. (1986) The elaboration likelihood model of persuasion, in R. E. Petty, and J. T. Cacioppo (Eds.). *Communication and persuasion central and peripheral routes to attitude change.* New York: Springer-Verlag, pp. 1-24.

Proctor, T. J. and Baker, B. R. (1995) Inclusion: one way a professional development school can make a difference. *Childhood Education*, 71, 4, 224-226.

Qualifications and Curriculum Authority (QCA)/DfEE (2001) *Planning, teaching and assessing the curriculum for pupils with learning difficulties*: *developing skills*. London: QCA.

Rajecki, D. W. (1982) *Attitudes, themes, and advances*. Massachusetts: Sinauer Associates Publishers.

Ramsey, C. (1997) *Deaf children in public schools: placement, context and consequences*. Washington, D. C.: Gallaudet University Press.

Rayner, E., Joyce, A., Rose, J., Twyman, M. and Clulow, C. (2005) *Human development an introduction to the psychodynamics of growth, maturity and ageing* (4th ed.). London: Routledge.

Robson, C. (2002) *Real world research* (2nd ed.). Padstow: Blackwell.

Rokeach, M. (1970) *Beliefs attitudes and values a theory of organization and change.* San Francisco: Jossey-Bass Inc. Publishers.

Rose, R. (2002) Including pupils with special educational needs: beyond rhetoric and towards an understanding of effective practice. *Westminster Studies in Education,* 25, 1, 67-76.

Rose, R. and Grosvenor, I. (2001) *Doing research in special education.* London: David Fulton Publishers.

Rosenberg, M. J. and Hovland, C. I. (1960) Cognitive, affective and behavioural components of attitudes, in C. I. Hovland and M. J. Rosenberg (Eds.). *Attitude organization and change, an analysis of consistency among attitude components.* New Haven: Yale University Press, pp. 1-14.

Salisbury, C. L. (1991) Mainstreaming during the early childhood years. *Exceptional Children*, 58, 2, 146-155.

Sapon-Shevin, M. (1996) Learning in inclusive classrooms: what about the curriculum? in W. Stainback and S. Stainback (Eds.). *Inclusion a Guide for Educators*. Baltimore: Paul H. Brookes Publishing, pp. 255-270.

Schildroth, A. and Hotto, S. (1995) Race and ethnic background in the annual survey of deaf and hard of hearing children and youth. *American Annals of the Deaf*, 140, 96-99.

Scott, B. J., Vitale, M. R. and Masten, W. G. (1998) Implementing instructional adaptations for students with disabilities in inclusive classrooms: a literature review. *Remedial and Special Education*, 19, 2, 106-119.

Scruggs, T. E. and Mastropieri, M. A. (1996) Teacher perceptions of mainstream / inclusion, 1958 – 1995: a research synthesis. *Exceptional Children*, 63, 1, 59-74.

Sebba, J. and Ainscow, M. (1996) International developments in inclusive education: mapping the issues. *Cambridge Journal of Education*, 26, 1, 5-18.

Senge, P. M. (1990) *The fifth discipline: the art and practice of the learning organisation.* London: Century Business.

Skidmore, D. (2004) *Inclusion: the dynamic of school development.* Buckingham: Open University Press.

Smith, P. K., Cowie, H. and Blades, M. (2003) *Understanding children's development* (4th ed.). Oxford: Blackwell.

Solity, J. E. (1991) Special needs: A discriminatory concept? *Educational Psychology in Practice*, 7, 112-119.

Sommers, R. and Sommers, B. (2002) *A practical guide to behavioural research tools and techniques* (5th ed.). New York: Oxford University Press.

Soodak, L.C., Podell, D. M. and Lehman, L. R. (1996) Teacher efficacy: toward the understanding of a multi-faceted construct. *Teaching and Teacher Education*, 12, 4, 401-411.

Stainback, W., Stainback, S., Stephanich, G. and Alper, S. (1996) Learning in inclusive classrooms: what about the curriculum? in W. Stainback and S. Stainback (Eds.). *Inclusion a Guide for Educators.* Baltimore: Paul H. Brookes Publishing Company, pp. 209-219.

Stakes, R. and Hornby, G. (2001) *Meeting special needs in mainstream schools: a practical guide for teachers* (2nd ed.). London: David Fulton Publishers.

Stanford Encyclopedia of Philosophy. *Punishment.* (2003). University of Stanford. Internet WWW page, at URL: <http://plato.stanford.edu/entries/punishment/#2> (05 September 2006).

Statcan, Appendix A: *History and changes to the definition of 'Urban Area' and 'Rural Area'.* Internet WWW page, at URL: <http://www.statcan.ca/english/research/21-601-MIE/2002061/appendixa.pdf> (05 August 2004).

Stephens, T. and Braun, B. L. (1980) Measures of regular classroom teachers' attitudes toward handicapped children. *Exceptional Children*, 46, 292-294.

Stipek, D. J., Givvin, K. B., Salmon, J. M. and MacGyvers, V. L. (2001) Teachers' beliefs and practices related to mathematics instruction. *Teaching and Teacher Education*, 17, 213-226.

Sugden, D. A. and Chambers, M. E. (2005) Models of intervention: towards an eco-developmental approach, in D. A. Sugden and M. E. Chambers (Eds.). *Children with developmental coordination disorder.* London: Whurr Publishers (pp. 189-211)

The Wall Street Journal. Glossary on the web. Investorwords.com. *Confidence level.* Internet WWW page, at URL: <http://www.investorwords.com/1027/confidence_level.html> (4 September 2006).

Thomas, G. and Glenny, G. (2002) Thinking inclusion. Whose reason? What evidence? *International Journal of Inclusive education,* 6, 4, 345-370.

Thomas, G. and Loxley, A. (2001) *Deconstructing special education and constructing inclusion.* Buckingham: Open University Press.

Tomblin, J., Records, N., Buckwalter, P., Zhang, X., Smith, E. and O'Brien, M. (1997) Prevalence of speech and language impairment in kindergarten children. *Journal of Speech, Language and Hearing Research*, 49, 1245-1260.

Tomlinson, S. (1982) *A sociology of special education*. London: Routledge and Kegan Paul.

Travers, C. J. and Cooper, C. L. (1994) Mental health, job satisfaction and occupational stress among UK teachers. *Work and Stress*, 7, 3, 203-219.

Trendall, C. (1989) Stress in teaching and teacher effectiveness: a case study of teachers across mainstream and special education. *Educational Research*, 31, 1, 52-58.

Tuckman, B.W. (1972) *Conducting educational research*. New York: Harcourt Brace Javanovich.

Tuttle, D. W. and Tuttle, N. R. (1996) *Self-esteem and adjusting in blindness: the process of responding to life's demands* (2nd ed.). Springfield: MetriTech.

Udvari-Solner, A. and Thousand, J. (1995) Effective organisational, instructional and curricular practices in inclusive schools and classrooms, in C. Clark, A, Dyson and A. Millward (Eds.). *Towards Inclusive Schools?* London: David Fulton, pp. 147-163.

UNESCO. International Standard of Classification of Education (ISCED) (1997) Internet WWW page, at URL: <http://www.unesco.org/education/information/nfsunesco/doc/isced_1997.htm> (05 May 2004).

UNESCO (1994) *The Salamanca Statement and framework for action on special needs education*. Paris: Unesco.

UNESCO (2001) *The Open File on Inclusive Education*. Paris: Author.

UNESCO. *UNESCO resource pack for the promotion of improved learning opportunities for street children*. Internet WWW page, at URL: <http://www.unescobkk.org/index.php?id=3359> (02 September, 2006)

UNICEF. *Convention on the Rights of the Child*. Internet WWW page, at URL: <http://www.unicef.org/crc/crc.htm> (20 May 2004).

University of Cape Coast. *About University of Cape Coast*. Internet WWW page, at URL: <http://www.uccghana.net/General/AboutUs.htm> (10 August 2004).

UNO 1948. *Universal Declaration of Human Rights*. Internet WWW page, at URL: <http://www.un.org/Overview/rights.html> (05 June 2004).

U. S. Department of Education (1989) *Eleventh annual report to Congress on the implementation of the education of the handicapped act.* Washington, D. C.: U. S. Government Printing House.

U.S. Library of Congress. Population of Ghana. *Urban-rural disparities*.. Internet WWW page, at URL: <http://countrystudies.us/ghana/35.htm> (05 September, 2004).

Vaidya, S. R. and Zaslavsky, H. N. (2000) Teacher education reform effort for inclusion classrooms: knowledge versus pedagogy. *Chula Vista,* 121,145-152.

Van Dalen, D. B. (1979). *Understanding educational research: an introduction.* New York: McGraw-Hill.

Vaughn, S., Schumm, J. S., Jallad, B., Slusher, J. and Saumell, L. (1996) Teachers views of inclusion. *Learning Disabilities Research and Practice*, 11, 96-106.

Villa, R. A., Thousand, J. S., Meyers, H. and Nevin, A. (1996) Teacher and administrator perceptions of heterogeneous education. *Exceptional Children*, 63, 1, 29-45.

Vislie, L. (2003) From integration to inclusion: focusing on global trends and changes in the Western European societies. *European Journal of Special Needs Education,* 18, 1, 17-35.

Vordzorgbe, Seth, D. *OECD/DAC Dialogues with Developing Countries on National Strategies for Sustainable Development Ghana country progress report.* National Development Planning Commission (NDPC), Accra and International Institute for Environment and Development (IIED), London, UK. 9-14 October 2000. Internet WWW page, at URL:<http://www.nssd.net/country/ghana/gh01.htm> (08 September 2006).

Vordzorgbe, Seth, D. and Caiquo, Ben. OECD/DAC Dialogues OECD/DAC Dialogues with Developing Countries on National Strategies for Sustainable Development, *Status review of national strategies for sustainable development in Ghana*. (2001). OECD/DAC Dialogues with Developing Countries on National Strategies for Sustainable Development.. Internet WWW page, at URL: <http://www.nssd.net/country/ghana/gh0407.htm> (08 September 2006).

Waldron, N. L. and McLeskey, J. (1998) The effects of an inclusive school program on students with mild and severe learning disabilities. *Exceptional Children*, 64, 3, 395-405.

Wang, M. C. (1990) Learning characteristics of students with special needs and the provision of effective schooling, in M. C. Wang, C. Reynolds and H. J. Walburg (Eds.). *Special education research and practice: synthesis of findings.* Oxford: Pergamon, pp. 1-34.

Warnock, M. (2005) *Special educational needs: a new look.* London: Philosophy of Education Society of Great Britain.

Weddell, K. (1978) *Early identification and compensatory interaction.* Paper presented at the NATO International Conference on Learning Disorders, Ottawa.

Weddell, K. (2005) Dilemmas in the quest for inclusion. *British Journal of Special Education,* 32, 1, 3-11.

Wehby, J., Symonds, F., Canale, J. and Go, F. (1998) Teaching practices in classrooms for students with emotional and behavioral disorders: discrepancies between recommendations and observations. *Behavior Disorders,* 24, 1, 51-56.

Wilson, A. R. (2003) *Special educational needs in the early years* (2nd ed.). London: RoutledgeFalmer.

Wilson, J. (2000) Doing justice to inclusion. *European Journal of Special Needs Education,* 15, 2, 297-304.

Wilson, N and McLean, S. (1994) *Questionnaire design: a practical introduction.* Newton Abbey: University of Ulster Press.

Wisniewski, L. and Gargiulo, R. M. (1997) Occupational stress and burnout among special educators: a review of the international literature. *Journal of Special Education*, 31, 3, 325-346.

Wood, J. W. (1998) *Adapting instruction to accommodate students in inclusive settings* (3rd ed.). New Jersey: Merril.

Ysseldyke, J. E. and Algozzine, B. (1995) *Special education a practical approach for teachers* (3rd ed.). Boston: Houghton Mifflin Company.

Yuker, H. E. (1988) *Attitudes toward persons with disabilities: progress and prospects,* in H. E. Yuker (Ed.). *Attitudes toward persons with disabilities*. New York: Springer Publishing Co, pp. xi-xiv.

Zambelli, F. and Bonni, R. (2004) Beliefs of teachers in Italian schools concerning the inclusion of disabled students: a Q analysis. *European Journal of Special Needs Education,* 19, 3, 351-366.

Zigmund, W. G. (1997) *Business research methods.* Chicago: Dryden Press.

Zimbardo, P. G. and Leippe, M. R. (1991) *The psychology of attitude change and social influence.* New York: McGraw-Hill Inc.

APPENDIX A

PILOT-TESTING QUESTIONNAIRE INSTRUMENT FOR DATA GATHERING

QUESTIONNAIRE FOR GENERAL EDUCATION TEACHERS IN GHANA

Dear Sir / Madam,

I am Emmanuel Kofi Gyimah, a Ghanaian, studying in the School of Education, University of Leeds, United Kingdom. I am conducting a study on the topic: TEACHERS' ATTITUDE TO INCLUSION IN GHANA under the supervision of Professor D. A. Sugden and Miss Sue Pearson, both of University of Leeds. The main purpose of the study is to assess the extent to which teachers in mainstream Primary Schools in Ghana meet the needs of children with special educational needs (SEN) and disabilities in their classrooms. This is a pilot-test aimed at refining the instrument. I am aware of the numerous responsibilities you have to attend to in the workplace and home. But considering what could come out of this study, I think it would be worthwhile if you could spend some of your precious time to complete the attached questionnaire as honestly and objectively as you can.

Please, feel free to write any comments you have about the questionnaire quality and the time it takes you to complete it. I will be pleased to have feedback soon.

Thank you.

(Emmanuel Kofi Gyimah)
PhD student, University of Leeds, UK.

SECTION A: BACKGROUND DATA

Instruction: Please, ***tick (√) the response*** which corresponds with your background data.

1. **Gender:** ∀ Male ∀ Female

2. **Age range:** ∀ 21-30; ∀ 31-40; ∀ 41-50; ∀ 51-60; ∀ 61+
∀ Any other (Please, specify).....

3. **Qualification:**
∀Basic Sch. Cert Exam. (BECE); ∀Senior Sec. Sch. Cert. of Exam. (SSCE);
∀Gen. Cert. of Exam. O' Level (GCE O'L); ∀Gen. Cert. of Exam. A' Level (GCE A'L);
∀ A 4 Year; ∀ A 3 Year;
∀ Diploma in Education; ∀Degree holder in Education
∀Any other? (Specify).....

4. **Teaching experience:** ∀ Less than 1 year; ∀ 1-3 years; ∀4-6 years;
∀ 7-9 years; ∀ ***10 years or more***

5. **Have you in your teaching career taught a child or children with special educational needs (SEN)?** (Please, move to question 7 if your answer to this item is no.)

∀ Yes ∀ No

6. **If your answer to question 4 is yes, which of the following categories of children with SEN did you teach?** (Please, tick all the categories you have taught or are teaching)

∀ Mild to moderate intellectual difficulties; ∀ Severe to profound intellectual difficulties; ∀ Emotional and behavioural difficulties; ∀Physical disorders (e.g. a child who uses wheelchair); ∀ Health disorder (e.g. asthma, diabetes, sickle cell etc); ∀ Deafness; ∀ Hard-of-hearing;
∀ Blind ; ∀ Low vision (i.e. partially sighted)
∀ Speech and language disorder

7. **Do you have any knowledge about how to manage children with special educational needs?** (Please, skip to Section B if your answer is 'No'.)

∀ Yes ∀ No

8. **If your answer to *item* 6 is yes, where did you have this knowledge?**

∀ While in the Training College or School of Education'; ∀ During an in-service training;
∀ In the mass media such as TV, Radio or newspapers;
∀ While on the job ∀ Any other? (Specify) .....

SECTION B: BELIEFS

In this study, beliefs are the ***thoughts*** you hold for children with special educational needs/disabilities (SEN) and disabilities in terms of meeting their needs in ***inclusive education*** (inclusive education is where children with and without SEN stay and learn together throughout the school hours in the same classroom).

9. **Instruction:** Please, use the key below to help you complete the scale of 1, 2, 3, 4 and 5. You are to select only one of the responses for each of the categories.

Key

1. I can manage them without any help from others
2. I can manage them when I consult experts for information on management strategies
3. I can manage them when there are special education teachers to work side by side with me in the classroom
4. I can manage them when there is a resource room service to complement what I teach them
5. I think special schools could best serve their needs

CATEGORIES	1	2	3	4	5
i). Mild to moderate intellectual difficulties					
ii). Severe to profound intellectual difficulties					
iii). Emotional and behavioural difficulties					
iv). Physical disorders (e.g. a child who uses wheelchair)					
v). Health disorders (e.g. asthma, diabetes, sickle cell etc)					
vi). Deafness					
vii). Hard-of-hearing					
viii). Blindness					
ix). Low vision (partially sighted)					
x). Speech and Language disorder					

10. What do you think are the advantages and disadvantages of teaching children with special educational needs (SEN) and disabilities?

a. Advantages:

(i) .....

(ii) .....

.....

b. Disadvantages:

(i) .....

(ii) .....

.....

SECTION C: ATTITUDES

Instruction: Below is a table showing six (6) paired emotional reactions a teacher is likely to undergo when asked to teach or are teaching a child or children with SEN and disabilities.

12. Please, for each of the categories of SEN and disabilities, tick one of each of the six (6) paired emotional reactions.

CATEGORIES OF SEN & DISABILITIES	EMOTIONAL REACTION											
	1		2		3		4		5		6	
	Relaxed	Anxious	Encouraged	Discouraged	Satisfied	Dissatisfied	Confident	Diffident	Self-assured	Worried	Positive	Negative
Mild to moderate intellectual difficulties												
Severe to profound intellectual difficulties												
Emotional and behavioural difficulties												
Physical disorders												
Health disorders												
Deafness												
Hard-of-hearing												
Blindness												
Low vision (partially sighted)												
Speech and Language disorders												

13. Describe how you feel or would feel in teaching a child or children with SEN and disabilities?

i) .....

ii) .....

iii) .....

iv) .....

v) .....

SECTION D: INSTRUCTIONAL STRATEGIES

14. **Instruction**: Below is a table to be completed. They are statements about instructional strategies on a 4-point Likert scale of 1; 2; 3; and 4. The figures stand for the following: 1 (Never); 2 (Sometimes); 3 (Often); and 4 (Always), For each of the statements, indicate with a tick (√) the one that reflects what you do in your classroom.

Statement	**1**	**2**	**3**	**4**
i). I set instructional objective(s) to cover all children including those with special educational needs (SEN) and disabilities.				
ii). I select instructional materials that make it possible for all children to learn.				
iii). I select learning tasks that children with SEN and disabilities can do.				
iv). I try to arrange my classroom to encourage participation.				
v). I vary the pace to help all children to learn.				
vi). I present tasks in bits to allow children to learn efficiently.				
vii). I give sufficient time to all children to practice what they learn.				
viii). I give sufficient time to all children to complete tests and assignments.				
ix). I ensure that questions are fair and evenly distributed to allow all children to contribute to lessons.				
x). I move to a new section or unit only when all children have understood and can perform what they have learned.				
xi). I constantly monitor all my children while they do class work.				
xii). I keep daily records of the progress children make in class.				
xiii). I design Individualised Education Plan (IEP) for children with SEN and disabilities.				
xiv). I give individual attention to children who need help.				
xv). I ask children to help each other				
xvi). I mix up the children when they are performing assignment.				
xvii). I let children with SEN and disabilities work at different activities when assignment is given.				
xviii). I allow children who have difficulties writing the chance to answer questions by saying it orally or verbally.				
xix). I approach consultants for advice when I do not know how to make all children learn.				
xx). I set up learning centres in the classroom to allow children with SEN to engage in certain activities.				
xxi). I ensure that the classroom is spacious to allow for free movement.				
xvii). I ensure that the classroom environment is comfortable for all children.				

Thank you for the time you have taken to complete all the items in the questionnaire.

APPENDIX B

INTERVIEW GUIDE FOR GENERAL EDUCATION TEACHERS IN GHANA

I want to thank you for accepting to participate in this study that surveys the beliefs and attitudes teachers in mainstream schools in Ghana hold for children with special educational needs and disabilities and how these influence inclusive practice in the Ghana. I want to give you the assurance that your name will remain anonymous and not be identified in any record that the information you supply will be put. For purposes of not missing out any information you give, I will crave your indulgence to tape record what we both say. If there is any issue that you do not clearly understand and therefore need clarification, please feel free to ask me. Thank you.

SECTION A: BACKGROUND INFORMATION

Please, may I have the following details about you?

1. Gender (may be known by researcher)
2. Age
3. Qualification
4. Teaching experience
5. Knowledge about children with special educational needs and disabilities

SECTION B: BELIEFS AND ATTITUDES (HYPOTHETICAL ISSUES)

Instruction: Please, I want you to listen carefully to some statements about some children with special educational needs and disabilities and respond to questions that follow. These children are between six and twelve years old. There is no right or wrong answers; answer the way you think of it. The questions to respond to are:

i. Which educational environment will you suggest for this child to receive education? (Consider the following options: mainstream only; mainstream with consultation; mainstream with special education teachers teaching side by side; mainstream with resource room; or special school.)
ii. Why will you want the child to be in this particular environment?
iii. Assuming you decided to educate the child in your classroom, what strategies will you use to meet his or her needs?

SCENARIOS (HYPOTHETICAL CHILDREN WITH SEN AND DISABILITIES)

1. The assessment results of a child show that he has mild to moderate intellectual difficulties. He does not seem to have any problem with the peer group since he mixes up well and does not exhibit any emotional difficulties.

2. The assessment results of a child show that she has severe to profound intellectual difficulties. She easily forgets what she learns, but does not

seem to have any problem with peer interaction. Her parents are worried for they fear she would be a drop out.

3. The assessment results of a child show that she has emotional and behavioural difficulties. She often throws temper tantrums, is inattentive and restless. Her class teacher is always shouting at her to keep quiet.

4. He has been observed to experience serious difficulty in moving from place to place and has to use the wheelchair. Aside from this, he has difficulty writing assignment.

5. Her medical history shows that she has chronic disease. This makes her miss classes a lot. If she is able to go to school, at times, her class teacher has to supervise her medication.

6. He does not hear what the class teacher says in class. When he was referred to the clinic his audiogram indicated that he is profoundly deaf and cannot even use hearing devices, such as hearing aids. He very often withdraws from the peer group and does not want to mix up with them.

7. Her class teacher is worried that she is scoring poor grades in her class assignments. The District's audiologist thinks the use of hearing aid could help alleviate her hearing condition.

8. The report from the optometrist indicates she can only read and write when the Braille is used. She does not seem to have any academic problem.

9. He can only read printed letters when they are boldly written. His parents are expressing much anxiety and the class teacher is worried about what to do.

10. He makes a lot of mistakes when he wants to communicate orally. The peers and class teacher find it difficult to clearly understand what he wants to tell them.

THANK YOU FOR THE TIME AND INFORMATION.

APPENDIX C

QUESTIONNAIRE INSTRUMENT FOR DATA GATHERING

QUESTIONNAIRE FOR GENERAL EDUCATION TEACHERS IN GHANA

Dear Sir / Madam,

I am Emmanuel Kofi Gyimah, a Ghanaian, studying in the School of Education, University of Leeds, United Kingdom. I am conducting a study on the topic: TEACHERS' ATTITUDE TO INCLUSION IN GHANA under the supervision of Professor D. A. Sugden and Miss Sue Pearson, both of University of Leeds. The main purpose of the study is to assess the extent to which teachers in mainstream Primary Schools in Ghana meet the needs of children with special educational needs (SEN) and disabilities in their classrooms. Please, I need your assistance in this investigation for I recognise you can provide the necessary information for this study. I am aware of the numerous responsibilities you have to attend to in the school and home. But considering what could come out of this study, I think it would be worthwhile if you could spend about 25 minutes of your precious time to complete the attached questionnaire. Please, look out for a-two page summary of the report that comes out of the findings.

Thank you.

(Emmanuel Kofi Gyimah)
PhD student, University of Leeds, UK.

SECTION A: BACKGROUND DATA

Instruction: Please, tick (√) the response which corresponds with your background data.

1. **Gender:** ∀ Male ∀ Female

2. **Age range:** ∀ 21-30; ∀ 31-40; ∀ 41-50; ∀ 51-60; ∀ 61+
∀ Any other (Please, specify).....

3. **Qualification:**
∀Basic Sch. Cert Exam. (BECE); ∀Senior Sec. Sch. Cert. of Exam. (SSCE);
∀Gen. Cert. of Exam. O' Level (GCE O'L); ∀Gen. Cert. of Exam. A' Level (GCE A'L);
∀ A 4 Year; ∀ A 3 Year;
∀ Diploma in Education; ∀Degree holder in Education
∀Any other? (Specify).....

4. **Teaching experience:** ∀ Less than 1 year; ∀ 1-3 years; ∀4-6 years;
∀ 7-9 years; ∀ ***10 years or more***

5. **Have you in your teaching career taught a child or children with special educational needs (SEN)?** (Please, move to question 7 if your answer to this item is no.)

∀ Yes ∀ No

7. **Do you have any knowledge about how to manage children with special educational needs?** (Please, skip to Section B if your answer is 'No'.)

∀ Yes ∀ No

SECTION B: BELIEFS

In this study, beliefs are the thoughts you hold for children with special educational needs/disabilities (SEN) and disabilities in terms of meeting their needs in ***inclusive education*** (inclusive education is where children with and without SEN stay and learn together throughout the school hours in the same classroom).

9. **Instruction**: Please, use the key below to help you complete the scale of 1, 2, 3, 4 and 5. You are to select only one of the responses for each of the categories.

Key

6. I can teach them without any help from others.
7. I can teach them when I consult experts for information on teaching strategies.
8. I can teach them when there are special education teachers to work side by side with me in the classroom.
9. I can teach them when there is a resource room service to complement what I teach them.
10. None of the above, I think special schools could best serve their needs.

CATEGORIES	1	2	3	4	5
i). Mild to moderate intellectual difficulties					
ii). Severe to profound intellectual difficulties					
iii). Emotional and behavioural difficulties					
iv). Physical disorders (e.g. a child who uses wheelchair)					
v). Health disorders (e.g. asthma, diabetes, sickle cell etc)					
vi). Deafness					
vii). Hard-of-hearing					
viii). Blindness					
ix). Low vision (partially sighted)					
x). Speech and Language disorder					

10. **What do you think are the advantages and disadvantages of teaching children with special educational needs (SEN) and disabilities?**

Advantages:

.....

.....

.....

Disadvantages:

.....

.....

.....

SECTION C: ATTITUDES

Instruction: Below is a table showing six (6) paired emotional reactions **you** are likely to undergo when asked to teach or are teaching a child or children with SEN and disabilities.

12. Please, for each of the categories of SEN and disabilities, tick (√) one of each of the six (6) paired emotional reactions.

CATEGORIES OF SEN & DISABILITIES	EMOTIONAL REACTION									
	1		2		3		4		5	
	Relaxed	**Anxious**	Encouraged	Discouraged	**Satisfied**	**Dissatisfied**	Confident	Diffident	**Self-assured**	**Worried**
Mild to moderate intellectual difficulties										
Severe to profound intellectual difficulties										
Emotional and behavioural difficulties										
Physical disorders										
Health disorders										
Deafness										
Hard-of-hearing										
Blindness										
Low vision										
Speech and Language disorders										

13. Describe how you feel or would feel in teaching a child or children with SEN and disabilities?

.....

.....

.....

.....

.....

SECTION D: INSTRUCTIONAL STRATEGIES

14. **Instruction:** Below is a table to be completed. They are statements about instructional strategies on a 4-point Likert scale of 1; 2; 3; and 4. The figures stand for the following: 1 (Never); 2 (Sometimes); 3 (Often); and 4 (Always). For each of the statements, indicate with a tick (√) the one that reflects what you do in your classroom.

Statement	**1**	**2**	**3**	**4**
i). I set instructional objective(s) to cover all children including those with special educational needs (SEN) and disabilities.				
ii). I select instructional materials that make it possible for all children to learn.				
iii). I select learning tasks that children with SEN and disabilities can do.				
iv). I try to arrange my classroom to encourage participation.				
v). I vary the pace to help all children to learn.				
vi). I present tasks in bits to allow children to learn efficiently.				
vii). I give sufficient time to all children to practice what they learn.				
viii). I give sufficient time to all children to complete tests and assignments.				
ix). I ensure that questions are fair and evenly distributed to allow all children to contribute to lessons.				
x). I move to a new section or unit only when all children have understood and can perform what they have learned.				
xi). I constantly monitor all my children while they do class work.				
xii). I keep daily records of the progress children make in class.				
xiii). I design Individualised Education Plan (IEP) for children with SEN and disabilities.				
xiv). I give individual attention to children who need help.				
xv). I ask children to help each other				
xvi). I mix up the children when they are performing assignment.				
xvii). I let children with SEN and disabilities work at different activities when assignment is given.				
xviii). I allow children who have difficulties writing the chance to answer questions by saying it orally or verbally.				
xix). I approach consultants for advice when I do not know how to make all children learn.				
xx). I allow children with SEN to engage in certain activities elsewhere in the classroom.				
xxi). I ensure that the classroom is spacious to allow for free movement.				
xvii). I ensure that the classroom environment is comfortable for all children.				

Thank you for the time you have taken to complete all the items in the questionnaire.

APPENDIX D

INTERVIEW GUIDE FOR GENERAL EDUCATION TEACHERS IN GHANA

I want to thank you for accepting to participate in this study that surveys the beliefs and attitudes teachers in mainstream schools in Ghana hold for children with special educational needs and disabilities and how these influence inclusive practice in the Ghana. I want to give you the assurance that your name will remain anonymous and not be identified in any record that the information you supply will be put. For purposes of not missing out any information you give, I will crave your indulgence to tape record what we both say. If there is any issue that you do not clearly understand and therefore need clarification, please feel free to ask me. Thank you.

SECTION A: BACKGROUND INFORMATION

Please, may I have the following details about you?

1. Gender (may be known by researcher)
2. Age
3. Qualification
4. Teaching experience
5. Knowledge about children with special educational needs and disabilities

SECTION B: BELIEFS AND ATTITUDES (HYPOTHETICAL ISSUES)

Instruction: Please, I want you to listen carefully to some statements about some children with special educational needs and disabilities and respond to questions that follow. These children are between six and twelve years old. There is no right or wrong answers; answer the way you think of it. The questions to respond to are:

i. Which educational environment (mainstream or special school) will you recommend for this child to receive education?

ii. Why will you want the child to be in this particular environment?

iii. Assuming you decided to educate the child in your classroom, what strategies will you use to meet his or her needs?

SCENARIOS (HYPOTHETICAL CHILDREN WITH SEN AND DISABILITIES)

1. The assessment results of a child show that he has mild to moderate intellectual difficulties. He does not seem to have any problem with the peer group since he mixes up well and does not exhibit any emotional difficulties.

2. The assessment results of a child show that she has severe to profound intellectual difficulties. She easily forgets what she learns, but does not seem to have any problem with peer interaction. Her parents are worried for they fear she would be a drop out.

3. The assessment results of a child show that she has emotional and behavioural difficulties. She often throws temper tantrums, is inattentive and restless. Her class teacher is always shouting at her to keep quiet.

4. He has been observed to experience serious difficulty in moving from place to place and has to use the wheelchair. Aside from this, he has difficulty writing assignment.
5. Her medical history shows that she has chronic disease. This makes her miss classes a lot. If she is able to go to school, at times, her class teacher has to supervise her medication.

6. He does not hear what the class teacher says in class. When he was referred to the clinic his audiogram indicated that he is profoundly deaf and cannot even use hearing devices, such as hearing aids. He very often withdraws from the peer group and does not want to mix up with them.

7. Her class teacher is worried that she is scoring poor grades in her class assignments. The District's audiologist thinks the use of hearing aid could help alleviate her hearing condition.

8. The report from the optometrist indicates she can only read and write when the Braille is used. She does not seem to have any academic problem.

9. He can only read printed letters when they are boldly written. His parents are expressing much anxiety and the class teacher is worried about what to do.

10. He makes a lot of mistakes when he wants to communicate orally. The peers and class teacher find it difficult to clearly understand what he wants to tell them.

SECTION C: TEACHING CHILDREN WITH SEN AND DISABILITIES IN THE MAINSTREAM

i. What do you consider to be the advantages of teaching a child or children with SEN and disabilities in the mainstream?

ii. What do you consider to be the disadvantages of teaching a child or children with SEN and disabilities in the mainstream?

THANK YOU FOR THE TIME AND INFORMATION.

APPENDIX E

LETTER TO REGIONAL DIRECTORS OF EDUCATION FOR PERMISSION TO CONDUCT RESEARCH

From the School of Education

University of Leeds
Leeds LS2 9JT

APRIL 21, 2005.

THE DIRECTOR OF EDUCATION,
GHANA EDUCATION SERVICE,
CENTRAL / ASHANTI / NORTHERNN REGION,
GHANA.

Dear Sir / Madam,

PERMISSION TO CONDUCT A RESEARCH STUDY IN PRIMARY SCHOOLS IN THE CENTRAL / ASHANTI / NORTHERNN REGION OF GHANA

I am Mr. Emmanuel Kofi Gyimah, a lecturer, with the Department of Educational Foundations (Faculty of Education), University of Cape Coast, Ghana, now studying at University of Leeds, United Kingdom under the supervision of Professor David A. Sugden and Miss Sue Pearson, both of the School of Education, University of Leeds.

I am conducting a study on: TEACHERS' ATTITUDES TO INCLUSION IN GHANA. The sampled regions are: Central Ashanti and Northern Regions. The study which is scheduled for between April and July, 2005 will require the selection of both trained and untrained teachers from Urban, Semi-urban and Rural areas of the selected regions.

I would therefore be grateful if you could grant me the permission to (i) select some of your teachers for the research, and (ii) have access to the teacher list to select a sample.

Thank you for your co-operation.

Yours faithfully,

(Emmanuel Kofi Gyimah)
PhD student

APPENDIX F

SPECIAL EDUCATIONAL NEEDS QUESTIONNAIRE

This is not a test but a questionnaire instrument aimed at finding out the number and type of children with special educational needs (SEN) and disabilities in Ghana. The data you supply would contribute significantly to decisions on improving the education and training of children with SEN and disabilities in the country.

A. Location of School

Instruction

Please, provide information on the location of your school by completing the following:

i. Region: .....
ii. District .....
iii. Circuit: .....
iv. School: .....

B. Type of SEN and degree or severity

Instruction

Please, provide information on the number of children with SEN and disabilities in your school (or classrooms) and the degree or severity. Write the number and tick the appropriate box on degree or severity of the SEN or disability

TYPE OF SEN	NUMBER	DEGREE / SEVERITY			
		Mild	Moderate	Severe	Profound
Mild to moderate intellectual difficulties.					
Severe to profound intellectual difficulties					
Emotional and behavioural difficulties.					
Physical disorders					
Health disorders					
Hard-of-hearing					
Low vision					
Speech and language difficulties					
Deafness					
Blindness					

Thank you very much for the information.

APPENDIX G

LIST OF PARTICIPATING SCHOOLS

NORTHERN REGION

TAMALE METROPOLITAN

2. Kanvilli Tuunayilli M/A Primary School
3. Our Lady of Fatimah Primary School
4. Sakasaka M/A Primary School
5. Tishigu Anglican Primary 'A' School
6. Dahin-Sheli M/A Primary School
7. Jisonayilli Islamic Primary School
8. St. Paul's R/C Primary 'A' School
9. Tiyumba M/A Primary School
10. Dakpema Primary School
11. St. Peters's R/C Primary 'B' School

SAVELUGU-NANTON

12. Rawdatul-Atfal E/A Primary School
13. Experimental Primary School
14. Yoo R/C Primary School
15. Adabiya E/A Primary School
16. Ulumdi Niyat E/A Primary School
17. Pong-Tamale Experimental Primary School
18. Pong-Tamale L/A Primary School
19. Rashadiya E/A Primary School
20. Pong Anglican Primary School
21. Ying Anglican Primary School

ASHANTI REGION

KUMASI METROPOLITAN

ADIEBEBA CIRCUIT

22. Danyame M/A Basic 1
23. Opoku Ware M/A
24. State Experimental M/A 'A'
25. State Experimental M/A 'B'
26. State Experimental M/A 'C'
27. State Experimental M/A 'D'

AKOSA CIRCUIT

28. Akosa M/A
29. Kwadaso Estate State M/A
30. Patase M/A
31. Prempeh College Experimental M/A
32. South Suntreso S. D. A.

AMANKWATIA CIRCUIT

33. A. M. E. Zion
34. Amankwatia M/A 'A'
35. Amankwatia M/A 'B'

ASEM CIRCUIT

36. Asem Boys M/A
37. Asem Mixed Experimental M/A

EJISU-JUABENG DISTRICT

38. Ejisu D/A Primary School
39. Ejisu R/C Primary School
40. Ejisu Presby Primary School
41. Krapa D/A Primary School
42. Bomfa D/A Primary School
43. Bomfa United Primary
44. Adumasa D/A Primary School
45. Adumasa D/A Primary School
46. Peminase Presby Primary School

BOSOMTWE-ATWIMA-KWANWOMA DISTRICT

47. Esreso D/A Primary School
48. Jachie Anglican Primary
49. Jachie D/A Primary School
50. Pramso R/C Primary School
51. Swedru D/A Primary School
52. Prabon D/A Primary School
53. Adagya D/A Primary School
54. Awaduo D/A Primary School
55. Dedesua D/A Primary School
56. Nkwanta D/A Primary School

KONONGO DISTRICT

57. Konongo Presby Primary
58. Konongo R/C Primary
59. Obenimase Methodist Primary
60. Atunso L/A Primary

CAPE COAST MUNICIPALITY

PEDU-ABURA CIRCUIT

61. Pedu M/A Primary / JSS 'A'
62. Pedu M/A Primary / JSS 'B'
63. Kakomdo Primary School
64. Esuekyir Primary / JSS
65. Abura St. Lawrence Catholic Primary / JSS 'A'
66. Abura St. Lawrence Catholic Primary / JSS 'B'

ABOOM CIRCUIT

67. St. Monica's Primary / JSS
68. Aboom A. M. E. Zion 'B' Primary/ JSS
69. Aboom A. M. E. Zion 'C' Primary/ JSS

O. L. A CIRCUIT

70. OLA Presby Primary/ JSS
71. University Primary
72. Apewosika Primary/ JSS

KOMENDA-EDINA-EGUAFO-ABREM DISTRICT

73. Kissi English Arabic Primary
74. Kissi Ebenezer Methodist Primary
75. Kyiase D/A Primary School
76. Akotobinsin Methodist Primary School
77. Bantuma D/A Primary School
78. Komenda D/A Primary 'B'
79. Komenda Ghasel Primary School
80. Elmina D/A Primary 'A' and 'B' Schools
81. Elmina Catholic Girls' Primary 'A' and 'B' Schools
82. St. James Anglican Primary 'A' and 'B' Schools

TWIFO-PRASO DISTRICT

83. Praso Anglican Primary School
84. Praso D/C Primary School
85. Praso Methodist Primary School
86. Darmang D/C Primary School
87. Nyenasi Catholic Primary 'A' School
88. Nyenasi Catholic Primary 'B' School
89. Somnyamekodur D/C Primary School
90. Ntafrewaso D/C Primary School
91. Eduabeng D/C School
92. No. 1 Village D/C Primary School