

**Institute of Education
University of London**

**Inclusion of pupils with special education needs in Sudan:
Teachers' perceptions of their competence and their perceived
training needs**

A thesis submitted to the Institute of Education University of London for the
degree of PhD in School of Psychology and Human Development

2011

By:

**Nagi Hamza Baldo Mohamed
School of Psychology and Human Development**

ABSTRACT

In Sudan, the education of children with special educational needs (SEN) in mainstream schools shows slow progress. The traditional medical approach, whereby the majority of children with SEN are educated in segregated schools or receive no education at all, is still the dominant recourse for educating pupils with all types of disabilities that may require special needs education.

This research is the pioneering attempt to explore Sudan's context of special education, and teachers' perceptions of their competencies and training needs within mainstream education in relation to inclusion of pupils with SEN. The research was carried out in Khartoum, the capital city of Sudan, where three visits were made throughout the study to collect the relevant literature and data.

Following extensive literature review of teachers' competencies related to SEN, a questionnaire was developed by the researcher. It was tested and used to collect quantitative data for the study. A total of 301 completed questionnaires, out of 325 distributed, were collected from fifty basic schools with a response rate of 92.6%. This was complemented by qualitative data obtained from semi structured interviews with 20 qualified teachers, 10 teacher trainers from the Faculty of Education University of Khartoum, and 10 educational supervisors responsible for advising and assessing teachers' performance in the state.

The completed research concluded that teachers are open to inclusion, however, they need training in SEN. This is a genuine situation that could add to knowledge in literature on teachers' perceptions to inclusion and children with SEN.

It was found that only 12 teachers had received any in-service or pre-service training in special educational needs. The findings also revealed that most educational supervisors had little or no training in this area. Teachers' perceptions did not vary with their personal characteristics. They generally showed lack of confidence in their competencies in all the dimensions investigated except personal skills. Importantly, they expressed a need for training to identify pupils with SEN, besides the need for support and advice in practical aspects of inclusion.

As a result of these findings, a number of recommendations are made to modify the existing in-service and pre-service teachers training to include competencies related to SEN. It also recommends provision for continuing professional development and consultancy support for teachers; which in turn will help facilitate implementation of responsible inclusion.

DECLARATION

No part of the work referred to in this thesis has been submitted in support of an application for another degree or qualification of the Institute of Education or any other institute of education.

Word count (exclusive of appendices and list of references): 88200 words

Nagi Hamza Baldo Mohammed

2011

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DEDICATION

**This effort is dedicated to the soul of my grand educator Sheikh Babikir Abdallah Ibrahim,
my family, and my two sons Mohamed Elmoutasim and Ridwan.**

ACKNOWLEDGEMENTS

I attribute the completion of this work solely to God's blessing and to my supervisors who worked beyond limits to make it see the light.

I would like to express my sincere gratitude to my supervisor Dr. Dawn Male who patiently guided and directed me throughout my years of study and significantly enhanced my appreciation of inclusive education and research skills. Moreover, she edited two publications during my study.

My sincere thanks are due to my co-supervisor Professor Peter Blatchford for his unlimited encouragement and support which helped me overcome all the difficulties and frustration during the study.

I am also grateful to all the Institute staff who assisted in their own ways, Anna Brett who proof read the study, postgraduate training staff, School of Psychology and Human Development staff, Research Degree School and Registry, Library and special thanks to members of MSc Special Education Needs programme.

I acknowledge the contribution of many people in Sudan who facilitated the access to research population and those who participated in the study and to Mr. Abdelmajid M. Abdelmajid for his invaluable support.

Finally, but surely not the least, I offer many thanks to my nephew Hamza Beldo for his assistance with computer and IT issues.

Research problem and Rational

Research Problem and Rationale

i) Introduction

The movement towards educating children with Special Educational Needs (SEN) in inclusive schools has gained momentum internationally. Sudan, which has been troubled by the longest civil war in recent history in addition to natural disasters that continue to result in millions of dead, displaced and disabled people, is feeling its way in the implementation of inclusive practices in basic schools.

This introduction will outline literature in SEN and the issues that are relevant to Sudan's efforts towards inclusive education in order to set out the theoretical background of the present study; it will also present the purpose of the study, the research problem, in addition to an initial brief overview of the methodology to be used to collect the data relevant to the research problem.

ii) The Purpose of the Study

The fundamental belief that children with special educational needs should be included with other children for purposes of general education, has been taking root for many years, and is indeed evolving into the more recent philosophy of inclusion. This fundamental belief, which embraces human rights arguments, presents challenges for all governments, as pressure is exercised at the international level to recognise such rights and entitlements. For developing countries like Sudan, however, other pressing motives, such as the need to develop human resources for the growing nation, are equally important, and there is no doubt that the justification for providing all children with opportunities to develop to the best of their potential is readily seen as priority. As noted by Farrell and Ainscow, (2002: p.4) 'the issues [surrounding inclusion] remain controversial, and among academics, policy makers and practitioners, there are still differences in definition of the terms and about the feasibility of developing more inclusive practices in schools'.

Furthermore, as the authors continue to observe, the development of special education has been uneven, and approaches to its provision differ across the world. Certainly, in Sudan, the introduction of inclusive practices in basic mainstream schools (equivalent to years 1

Research Problem and Rationale

to 9 in the British education system) is a very recent phenomenon and teachers are completely unprepared for the experience, since their initial teacher training does not address special educational needs, even at the most superficial level.

In contrast, most western countries have reached the stage whereby pre-service teacher training acknowledges the reality of inclusive education, and have introduced curriculum changes, in an attempt to offer some preparation for teachers. This situation at least offers the less- developed countries the benefit of learning from others' experience, which can be of great value, in terms of formulating policies and implementation guidelines, enabling less-developed countries to draw on the accumulated knowledge of the more advanced educational environments.

The theoretical underpinning of this study as it has emerged from the literature review emerges out of two different views of models of disability (medical model and social model), and the Index for inclusion (Booth and Ainscow, 2002)

One of the most frequent findings in research all over the world suggests that teachers' attitudes towards inclusive practices are conditioned on a number of factors, one of these being the degree to which they see themselves as competent to deliver a quality educational experience to children with special educational needs. Mastropieri and Scruggs (2002) provide sample evidence of this phenomenon in their meta-analysis of American attitude studies; Avramidis and Norwich (2002) identify similar instances in their literature review about teachers' attitudes towards inclusion.

From this wealth of research, it is apparent that those teachers who feel insecure in this respect, tend to demonstrate negative attitudes towards inclusion, whilst those who have had the benefit of some training and skill-building, see the prospect as much less daunting, and the more exposure they seem to have to appropriate training, the more favourable their attitudes appear towards teaching children with special educational needs simultaneously with other children.

An important pre-requisite for securing the appropriate education and psychological wellbeing of pupils with special needs is appropriate training of their teachers; to ensure that they have the

Research Problem and Rationale

basic core of relevant information, knowledge and skills, as well as positive attitudes to the education of such children in ordinary schools (Mittler, 1992). However, to date, there is very little or no research evidence as to whether or how far these requirements are met in Sudan. Most research on inclusion in Sudan is purely descriptive and none of these studies have investigated the training needs of teachers in relation to the inclusion of children with special educational needs. Furthermore, the experience in the training of mainstream teachers, suggests that the initial training currently provided, does not prepare them adequately to include pupils with special educational needs in mainstream classrooms. If teachers are not adequately trained to meet the needs of children with learning difficulties, who may currently be in their classroom, it is even less likely that they will be able to cope if a policy of full inclusion is introduced. In such circumstances, the children are unlikely to achieve their learning potential and may be harmed psychologically.

iii) Research Aims and Rationale

Drawing upon personal experience and a review of the literature, the researcher suggests that attitudes and training are key issues in any attempt at inclusion of children with special educational needs. Since training is one way to bring about attitude change, a significant weighting is given to training. Indeed, attitude change may be considered one of the purposes of training. Since inclusion is a relatively recent innovation in Sudan, there is possibly an urgent need for the development or modification of initial and in-service training programmes in Sudan, taking account of the requirement for teachers to be aware of and responsive to children with special needs. For such a programme to be effective they would need to be based on an investigation and understanding of the knowledge, skills and attitudes teachers needed to acquire. This study is an attempt to assess teacher needs; as a first step on the ladder of developing a suitable training programme in the near future.

iv) Research Questions

The overall aim of the study is to investigate what competencies Sudanese mainstream basic school teachers perceive they need to acquire in order to enable them to meet the needs of children with special educational needs in inclusive classrooms.

Research Problem and Rationale

There are two distinct parts to this research:

- 1- Identification of training which currently exists for teachers in terms of children's special educational needs.
2. Identification of teachers' attitudes towards their own professional training in this area.

The first is a mapping out of the situation and the second is an investigation into teachers' perceptions.

As is shown later in the thesis, in order to achieve the study's overall aim, an attempt will be made to answer the questions relating to this study which are:

1. What knowledge, skills and attitudes do teachers currently have, or not have, regarding inclusion of children with special educational needs?
2. Are there significant relationships between teachers' knowledge, skills and attitudes and their personal or professional characteristics, such as age, teaching experience, and previous SEN training?
3. What kind of training and support in teaching children with SEN is currently available?
4. What training, either pre-service or in-service, have the teachers had in competencies related to special educational needs?
5. What are the competencies (knowledge, skills, and attitudes) perceived to be needed by teachers to enable them to meet special educational needs?
6. Do participants perceive a need for teachers to receive further (or different) training in SEN? If so, in what particular aspects?

v) Research Approach

The research questions will be addressed in two phases: The first phase was an exploratory phase to gain some preliminary insights into the current situation with regard to educational provision

Research Problem and Rationale

for children with special educational needs in Sudan. This initial exploration was necessary in order to identify key issues for the main investigation, refine the research aims and questions, and identify available sources of information in order to develop an appropriate methodology.

A detailed account of this exploratory phase of the research, and its outcomes, will be found in Chapter One on the Sudan context of SEN.

In the second (main) phase of the research, a survey was carried out to assess the attitudes and opinions of basic mainstream school teachers in the district of Khartoum towards the following:

- 1- teachers' competencies in relation to teaching children with SEN.
- 2- teachers' need/wish for training in these areas.
- 3- teacher trainers' perceptions of the knowledge, skills and attitudes mainstream teachers need to enable them to meet the needs of children with SEN.
- 4- the current provisions in pre-service and in-service training to equip teachers with these competencies.
- 5- educational supervisors' perceptions of what is happening in relation to pupils with SEN in mainstream schools.
- 6- teachers' ability to meet the needs of such children and the help and support available to them.

A detailed account of the research methodology, including instrument design and sampling issues, is given in the methodology (Chapter Five).

vi) Significance of the Research

A search of literature regarding the inclusion of children with special educational needs in mainstream schools in Sudan demonstrates regular teachers have no, or very limited, experience in this respect. This opens up the field for a range of research methodologies. To the knowledge of the researcher, this research is pioneering in that no other similar research has been attempted in the Sudan's context, therefore, it does not build on any previous studies but makes an original contribution to the field.

As indicated earlier in this chapter, a few writers have written descriptively on special needs e.g. Abdelkarim, (1999), Alhassan and Albasit, (2001). This study will therefore make a significant

Research Problem and Rationale

contribution to the global literature about the Sudan's context of special needs education which will be an addition to the literature in this field. It will provide new knowledge about Sudan as it is the first empirical study of the country's context of SEN and can add to the knowledge for similar developing countries. Such an experience would be beneficial in formulating policy and implementing guidelines in the field of SEN in these countries.

Moreover, Sudan is in a desperate need of rigorous studies at a recognised international level such as the present study which has the potential power to raise teachers' awareness and provide a base of knowledge and information from which future policies and training programmes can be developed. This is looked at as a necessary requirement for change in inclusive education in Sudan

This study is expected to be of interest to teachers, academicians and policy-makers. Eventually, it is hoped to benefit children with special educational needs in the future, as it will help towards providing them with teachers who are able to develop their cognitive and social potential and enhance their psychological well-being.

Introduction

Overview and discussion of Issues raised in the thesis

Overview

This introduction aims at offering an overview of the thesis and more importantly, to clarify difficult and complex issues mentioned in the thesis which need to be set out for the reader beforehand.

i) Overview of the Thesis

This thesis is presented in seven chapters, as follows:

Introduction which details the thesis structure and offers the reader some understanding about terminology and language used through the thesis, the language and labels used around inclusion and SEN, and a brief discussion on policy borrowing.

Chapter One establishes the context of the research by over viewing Sudan's education system, with special reference to the education of children with special educational needs, and teacher training.

Chapter Two presents the theoretical framework for the research. First, the concept of special educational needs is explored, and the current Sudanese understanding of the term is highlighted. This is followed by discussion about models of disability and the Index of inclusion. In the second part of the chapter, ways of providing for pupils with SEN are discussed, including i) segregation and ii) inclusion. The rationale for inclusion is presented and approaches to implementing it are discussed, with special reference to the debate between 'full' and 'responsible' inclusion.

Chapter Three reviews the literature on competencies and teacher training in relation to SEN. It explores the knowledge; skills and attitudes needed by teachers in order to meet the needs of SEN effectively, and reports findings from previous studies of attitudes and competencies. It discusses methods of assessing training needs, and outlines various existing training models.

Chapter Four contains includes an account of the exploratory phase of the research. The objectives of the exploration are explained, the methods adopted are described, and the outcomes are presented in detail. The chapter concludes with a discussion of the derived implications for the main phase of the research.

Chapter Five is concerned with the methodology in the second (main) phase of the research. The research questions are re-stated and linked to the research design, and the target population is identified. The rationale underlying the choice of research instruments is explained and their development and piloting are reported. The data collection procedures used in the main study are outlined, and the methods used to code and analyse the data are indicated.

In Chapter Six, The quantitative and qualitative data obtained from the research questionnaire survey and interviews are reported.

Chapter Seven includes a discussion and interpretation of the research findings in the light of the theoretical framework and previous empirical studies.

In Chapter Eight, recommendations are offered to improve training and support for basic mainstream teachers in Sudan to meet the needs of pupils with SEN. Following a critique of the strengths and weaknesses of the research, suggestions are made for future research to build on the contribution of this thesis and explore further the issues it raises.

ii)Terminology:

It is important to point out that terminology used in relation to inclusion and special educational needs were subject to change over time from one country to another within different contexts and even sometimes within scholars in the same country (DfES,2001, Booth et al, 2000). The literature review revealed that there is no global understanding of terms like 'inclusion' and 'integration', 'special educational needs' and 'learning difficulties'. This results from the adoption of different models of disability and philosophy of inclusion by different countries and scholars (Mittler, 2000, Okpanachi, 1995). Exploration of some contestations around these terms are discussed in details in Chapter Two section 2.2.1, however, it is important to offer

clarification to the terms used in this thesis as it is not only the terminology, but even the concept of inclusion and special needs, has been shown to be problematic. This suggests that different terms, definitions and interpretations may reflect differences in attitude and philosophy from one context to another.

For the purpose of this study, the meaning of the main concepts is as follows:

- a- **Inclusion:** is appreciated as opposite of segregation, a requirement for all children to have access to the same educational facilities at one and the same time in mainstream school classes.
- b- **Integration:** A requirement for children to attend special classes in mainstream school with the full access to the same social, sport and other activities with their other peers during the school day.
- c- **Segregation:** Segregation is education of pupils with SEN separately from their peers, in special schools.
- d- **Special educational needs.** Children have special educational needs if they have learning or disability difficulties which call for special educational provision and arrangements to be made for them.
- e- **Learning Difficulties:** Are one aspect of SEN. Children have a learning difficulty if they have a significantly greater difficulty in learning than the majority of children of the same age; or 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.

In Sudan, terms of 'inclusion' and integration' as well as 'special educational needs' and 'learning difficulties' are used interchangeably. However, for the purpose of consistency every term will be used with the exact reference to its meaning given above when discussing Sudan's context of SEN through the thesis except for 'learning difficulties' which was replaced by 'special educational need. The two terms were used interchangeably by teachers; and as 'learning difficulties' are only one aspect of SEN, the latter term was used instead.

iii) The language and labels used around inclusion and special educational needs:

Labeling is required to be included for special education. Under current law in the UK and western countries, to receive special education services, a child must be identified as having a disability (i.e., labeled) and, in most cases, must be further classified into one of that state's categories, such as mental disability or learning difficulties. In practice, therefore, a child becomes eligible for special education and related services because of labeling in a given category.

The use of disability labels becomes problematic in the disability debate. In one hand, the labels are educationally purposeful. They are used to diagnose academic weaknesses in struggling students and provide specific areas where help and educational support are needed. On the other hand, the labels become markers of negative traits. These traits are used to identify those students who are unable to fit into the mainstream schooling.

Schooling remains a critical agent in the process of defining, labeling and treating disabled children (Slee, 1993, p.353). In Sudan, and during the exploratory phase of the study, it was found out that teachers and parents decide whether to send a child with SEN to medical examination. If the child is labeled he/she will be transferred to a special school or elsewhere. They may end up out of the education system.

While it is agreed that a common language for referring to children with SEN is necessary, however, the words that are used as labels, and the order in which they are spoken and written influence the degree to which those words effectively and appropriately communicate variables relevant to the design and delivery of education and other social services. Gelb, (1997) argues that labels imply that all people in a specific group being labeled are alike, that means their individuality has been lost. Actually when labels are used, too much emphasis is placed on this disability which may suggest that the deficits caused by the disability are the most important thing to know about those being labeled. It is important for everyone, not only SEN teachers to speak, write and think about these children in ways that respect each person's individuality and recognize their strengths and abilities instead of focusing only on their disabilities.

In Sudan, there is still use of words referred to by Corbett, (1995) that foster fear, mistrust, loathing and hostility for abuse not only in the society but even by teachers in schools e.g.

‘imbecile’, ‘idiot’, ‘moron’, and ‘retarded’. Names of institutes for people with disabilities use words like ‘deaf and dumb’, ‘mentally retarded’, ‘blind and partially blind’.

In government policy documents (Ministry of Education, 2004) despite the fact that labels refer to ‘difference and ‘deviance’ have changed over time as they imbed offense and discrimination towards disabled people, classification of people with mental disabilities uses terms like ‘educable’, ‘trainable’ ‘deformed’ ‘mental deficiency’. The existence of such labeling prolongs the pathologising of children and the maintenance of the medical model, and contributes to their exclusion from mainstream school education.

For the purpose of this study, inappropriate labels used in policy documents in Sudan and by this study sample of teachers will be renamed to reflect the current trend of respectful use of language and terminology as follows:

- The label ‘impairment’, ‘deficiency’ were replaced by ‘disability’
- The label disabled children was replaced by children with special educational needs for children attending education.
- Labels regarding mental disability will be referred to as mental disability and children with these disabilities attending education will be referred to as ‘children with mental special needs’. The label ‘Down’s syndrome’ will be the same.
- Children with visual disability attending education will be referred to as ‘children with visual special needs’
- Children with hearing disability attending education will be referred to as ‘children with hearing special needs’.
- The label ‘sensory disabilities’ were replaced by ‘visual and hearing disabilities’ and for children attending education ‘children with visual and hearing special needs’ was used instead.

iv) Policy Borrowing:

The globalisation of educational policy has become a popular phenomenon among educational policymakers across the world. It has led many observers to conclude that educational systems in different parts of the world are converging towards one international (neo-liberal) model of school reform (Steiner-Khamisi et al, 2004). They argue that practice of borrowing and lending

school reforms requires a serious examination of the politics and the economics of transnational educational transfer. However, the value of importing and exporting educational policies, analyse who benefits from these arrangements, and test the effectiveness of adapting one country's policies in other (often quite culturally distinct) countries remain questionable.

Philips and Ochs (2004) discuss notions of 'borrowing' and 'influence' and refer to a model of the analysis of what are seen as four stages in the policy borrowing process which can be tested empirically. These are identified as cross-national attraction, decision, implementation, and internalization/indigenization. However, the value of importing and exporting educational policies, analyse who benefits from these arrangements, and test the effectiveness of adapting one country's policies in other (often quite culturally distinct) countries remain questionable.

Kristensen, (2011) argued that it is not possible or desirable to transfer wholesale any educational system from western countries to developing countries. He suggested that African countries must be very critical in receiving assistance or advice from have little or no knowledge about African setting e.g. culture, traditions, and each country administrative structure and plan for future development. This could be typical to Sudan's context of education.

Sudan share religious and social values with Arab countries where teachers in the past were sent to Egypt, Syria and Kuwait to receive a short in-service training in special education. However, as the education system is centralised, to my knowledge, there are no any attempts by regional educational authorities to approach their neighboring African counterparts in relation to education policy and exchange of experience in provision of special needs education.

Any attempt like this study should try to explore areas of global special needs education policies that can fit, or modified to suit the Sudan's context of education and social values before importing that to the country's education system. Otherwise, these attempts would be immediately rejected and the policy borrowing would be deemed a failure.

Chapter One

The Sudanese Context of the Provision of Special Needs Education

The Sudanese Context of the Provision of Special Needs Education

1.0 Introduction

This chapter provides an overview of the special education provision in Sudan. It introduces the Sudan in its position in Africa and then offers a detailed review of the provisions embodied within the system for pupils with special educational needs. The problems which are experienced in attempting to mainstream such pupils are highlighted, and the official response to these is noted. Additionally, the chapter offers an early indication of the outcome of attempts at inclusion. This chapter will consider the educational and cultural context in which all those who participated in the overall research, headteachers, administrators, teachers, and children, find themselves as players in the process of inclusion. As mentioned earlier, mapping out of the situation of SEN provision in Sudan is a distinct part of this study as without knowledge of the background to the Sudanese educational system, it would be difficult to understand the responses of the participants in this study.

The chapter is the first comprehensive contribution to the field of SEN about Sudan's context of special needs education provision. Information for this chapter was obtained during the exploratory visit to Sudan (Chapter Four), pilot and main study (Chapter Five). It included translation of extracts from several available publications, documents, reports, and statistics and conference papers. It also included personal visits to government and non-government departments and SEN institutes, attending workshops, symposiums, events and conferences regarding SEN.

1.1 Sudan and a Summary of the Education System

Sudan lies at the north east of Africa. It occupies one million square kilometres, with a population of 25 million according to the 2009 census. Sudan is one of the biggest countries in Africa despite the fact that the south of Sudan has voted for separation which took place in July 2011. Sudan is bordered by seven countries and the Red Sea. Sudan is ranked 169 out of 179 countries on the 2011 UNDP Human Development index (HDI). This indicates that it is one of the poorest countries in the world. The four key indicators used to calculate the HDI are:

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- Longevity: measured as life expectancy at birth which was 54.2 years for men and 57 years for women
- Educational Attainment: measured as the gross enrolment ratio which was 36% among boys and 31% among girls at the age of general education (6-17 years).
- The standard of living: measured as per capita GDP which was 1894US dollars per year.
- The adult literacy rate: This was 56.9% nationally.
- The provision of education in the Sudan has a long history, but contemporary schooling is available for all people and the process of development has been rapid and extensive, so that general education is perceived by the government as a key element for the growth of the nation.

The Sudan remains after separation of the south as an Arab-African country, most citizens of which are Muslims (as per census 2009). The Sudanese history and character are determined by ethnic and religious elements. Thus the aims of education are designed so as to stress, on the one hand, the Sudan's national and regional relations and its religious views on the other. The above aim played a great role in the development of education, especially the Arabic culture which started with the establishment of the Sudanese Graduates Congress in year 1938 calling for Arabisation and for major changes in the existing education system.

1.2 The Impact of War and Conflict on Education in Sudan

There is a growing international attention to children's education in countries affected by wars and conflicts, with a particular focus on basic schooling (Lloyd et al, 2011, Seitz, 2004).

As the Sudan is torn by regional conflicts and civil war, human rights and violations committed during such conflicts have come under the scrutiny of the international community e.g. the UN and human rights groups. The head of state was indicted by the International Criminal Court supported by the UN Security Council with charges of war crimes, crimes against humanity and mass killings (atrocities) in 2009, accompanied by minister of Interior Affairs, 2007 and the minister of Defence in 2012 (ICC, 2007, 2009, 2012), with some other ministers and officials who are accused and wanted by the court for similar crimes. The country is subject to USA and western countries economic, technology, aids and military sanctions.

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This led the government to expel nineteen western relief and aid organizations after accusing them of spying and falsifying evidence to the UN and was followed by rigorous restrictions on movements and all activities carried out by foreign persons and organisations.

As indicated by EFA (2011) countries affected by armed conflicts are among the farthest from reaching the Education for all goals and their educational challenges go largely unreported, (p.6). Armed conflict according to the report diverts public funds and aids from education into military spending. Consequently, lack of financial and human resources hindered education development in Sudan. This is a direct impact of armed conflict on education and other public services. In Sudan, the budget allocated for education in the country falls well below that required to meet the aspirations and the optimistic plans for development. According to the government budget 2010, only 1.03% of the gross national product GNP is allocated for education, whereas 70% is spent on defence, security forces and policing, according to the 2009 budget (Ministry of Finance, 2009).

The failure to provide resources to train and qualify teachers to properly implement the educational policy also played a part in the deterioration of education. Moreover, language and cultural differences between different parts of the country contributed to this. In the Sudan, Arabic language prevails; whereas local dialects are used in many parts of the country.

Lack of integration and long civil war between the north and the south in the past helped heighten the political struggle and thus the educational policy was adversely affected. Moreover, the lack of stability and change of governments since 1956 has had its effect on education. With the fall of governments and the appearance of new ones, policies are cancelled and new ones started. The years 1956-69, 1973-78, 1978-81, 1983-85, 1989 1991, 1992-2010 witnessed such changes (Ministry of Education, 2010).

Despite the fact that Khartoum where the study was carried out is not directly affected by the military conflict, however, the impact of this conflicted is reflected on economy, education and other public services in the whole country.

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1.3 Structure of General Education System

Being underpinned by the Islamic culture, the system in Sudan operates single sex schools and a national curriculum, within a highly centralised framework. The responsibility for male and female education was held by The Ministry of Education with the emphasis of the importance of educating the country's females. There are some foreign and private schools that operate co-education, especially in the capital.

Kindergarten (nurseries), the first level of general education, is now compulsory for all children, at least between the ages of 4-6years to, in order to be accepted in state funded schools for basic education. At present 90% percent of kindergartens are private and unaffordable to most families. This interprets the high number of children who do not attend schools.

School education covers an 8+3 pattern, divided into Basic and Secondary education. Secondary education is divided into academic and technical/vocational education.

a. Basic Education

Children between the ages of 6 and 14 follow an eight-year cycle. This system was introduced to guarantee maximum possible basic education, particularly due to the number of students leaving school at an early age. The Minister of Education stated that the number of children of school age who were never enrolled in any educational establishment for the year 2008/2009 was estimated at 300 000, (Ministry of Education 2010). The reason for this is the fact that most of the successful basic schools that provide good education are private, whereas state schools are under resourced and troubled by teacher shortages.

b. Secondary Education

At secondary level students can choose between academic and technical/vocational education streams.

- **Academic**

The academic stream is a three-year cycle leading to the Sudan School Certificate. In the first two years students follow the same curriculum; the third year provides a choice between arts and sciences. Within the science stream students can choose between biology and mathematics.

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• Technical and Vocational

Technical and vocational schools offer secondary education for students in the following areas:

- Agriculture - 11 schools for boys only
- Commerce - 76 schools for boys only
- Industry - 37 schools for boys only
- Home economics - 6 schools for girls only

These schools cover a mixture of academic and technical subjects. Courses last three years and also lead to the Sudan School Certificate. Successful students may proceed to study applied sciences and technical subjects at university level.

1.4 Teacher Training

Previous to the Educational Reform Act 1991 there were three modes of primary school teacher training:

- Pre-Service, training in institutes which offered four-year courses for junior secondary school graduates (there were 9 for men and 8 for women).
- In-Service training held at "in-service educational training institutes (ISETIs) which offered two year on-the-job training courses for untrained secondary school graduates, with at least one year teaching experience in primary schools, using the integrated multimedia approach applied by the UNRWA-UNESCO Institute for training refugee teachers in Palestine.
- The third form, known as Successive Training offered two successive three-month courses for untrained secondary school graduates teaching in primary school during the summer vacation. The training capacity of the three forms was some 3000 teachers per year, which was considered adequate for normal expansion.

Junior secondary or intermediate schoolteachers were trained in 8 institutes, which offered two-year training courses for secondary school leavers.

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Secondary school teachers are drawn mainly from three sources: (a) Graduates from university faculties of education. (b) University graduates from other faculties. (c) Non-graduates who have had some years of university education. Category (a) is fully qualified, category (b), though academically qualified, lacks professional qualification; the last lacks both. The reform policy (1992) raised the minimum qualification for teachers from secondary school certificate to university degree. Consequently all the former institutes have converted to university level colleges to provide in-service degree courses for ex-primary and intermediate schoolteachers as well as training new teachers.

The main reasons for raising the qualification of schoolteachers are:

- To enable teachers to cope with the changes in the goals, the content and methods of education.
- The need to train specialized teachers e.g. class-teachers, multi-grade teachers, special education teachers etc.
- To help teachers develop academically and professionally so as to participate in the development of education in the country. However, the implementation of the new policy is hampered by many constraints, for example:
 - a) The shortage of teachers has discouraged many state educational authorities from releasing large numbers of teachers for long training periods.
 - b) Often shortages in financial resources prevent some states from bearing the training costs.
 - c) Many teachers have family obligations and prefer to stay near or with their families and resist any attempts to encourage them to relocate, which may disturb their family life. This has resulted in a comparatively high rate of dropout from the training courses.
 - d) Difficulty of co-ordination between centre and states in financing, planning and implementing training programmes.

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- e) The Comprehensive National Strategy for Development (1992-2002) set the year 2000 as the target date for UPE by which the total number of basic education teachers would rise to an estimated number of 140000, entailing the training of 45000 new teachers in six years (1994/95-2000/1) that is an average of 7500 teachers per year. If we add 41000 untrained serving teachers the total will rise to 86000 untrained teachers that needed to be trained during that period. However, the available training facilities and programmes were inadequate to achieve that goal.

However, the lack of financial resources deeply affects expansion in teacher training. The Undersecretary of State stated on a news conference in 2009, that there was a shortage of 2500 teachers in the capital's mainstream schools and that not all the target of providing seating and school books for all pupils could be met for the academic year 2009/2010.

In state schools, 50% of the basic and secondary education staff are untrained, the reason being that the majority of people entitled for national services (those who would be called up to serve in the military) prefer to spend this period on teaching in basic and secondary schools although they are without any qualification or experience in education. There is also shortage of specialized subject teachers particularly math, science and language teachers. Most qualified teachers prefer to work in private schools because of better salaries and pleasant environments.

With regard to special education, teachers are currently trained in schools in which they work by experienced teachers who have worked there before retirement. Before the Gulf War in 1990, Kuwait sponsored the training of teachers of SEN in Sudan for many years. The sponsorship stopped due to political differences between the two countries after the Iraq invasion (Ministry of Education, 2004). Also due to the lack of financial resources, the government stopped sending teachers to train and qualify in Egypt and Syria where 48 teachers were trained in the past.

Special education teachers may be recruited from qualified public school teachers who wish to specialize in the field and have a minimum of three years regular teaching experience. The training is given at state funded and charity SEN institutes under the supervision of the Ministry of Education. During a pilot visit to Sudan, It was found that no teacher training for special needs

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is given to general education student teachers or existing teachers whether at university education faculties or teacher training institutes. It is regrettable to mention that teachers' training programmes for general education in training institutes and universities do not include any subject related to the teaching of children with special educational needs. There is one exception however, and that is the training programme of BA students at the department of educational Psychology, University of Khartoum where the training includes theoretical and practical aspects of SEN education provision.

Special education teachers at individual institutes are sponsored to take periodic short courses to keep abreast of new teaching methods. A number of specialists in the field are sponsored by the government to attend specialized programmes abroad, mainly in Egypt and Syria, and these specialists could work later as SEN teacher trainers and supervisors.

1.5.1 Special Educational Needs in Sudan

Sudanese traditional society's perceptions of children with SEN are still a major obstacle in education and social integration of such children. A large number of disabled children and adults are still being kept in back rooms and prevented from seeing or contacting other people. This is due to the lack of education and family awareness of the rights of disabled children as well as embarrassment. Some families and communities believe that disability is a divine punishment or the sign of a curse or God's displeasure, while others fear that they may be shamed because of their children disabilities.

In addition, some communities believe that disability is an inherited disease and this creates the fear that their second generation will be rejected as marriage partners by other families. All this has resulted in the total segregation of children with disabilities, especially those with mental, severe and multiple disabilities, from the outside community. They are also deprived of education and rehabilitation services, which deemed them to be unproductive members of the society.

In Sudan, some statistics on the population of people with disabilities are available. According to the Population Census of Sudan 2009 there were about 880,000 disabled persons in Sudan (2.25

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per cent of the population) in 2009. It is generally agreed that these figures do not give an accurate picture of the actual prevalence rate, which is assumed to be higher. A member of the Council of Human Rights, Section of Rights of the Disabled estimated the figure at 3 million as in addition to the worldwide recognised causes (Ministry of Health, 2009) the causes of disability are very high for the following reasons:

- Wars, landmines and regional armed conflicts in different areas of the country have resulted in a large number of disabilities among the population.
- Natural crisis such as drought, desertification, floods and fires which force hundreds of thousands of people to move from one place to another to end up as displaced persons who live in very difficult health and environmental situations. Malnutrition and contraction of infectious diseases led to thousands of people suffering blindness, deafness and physical disabilities in the displaced persons' camps.
- Practice harmful traditions e.g. circumcision of woman and girls raised the percentage of mothers and child mortality, and disability of newborn children, to the highest levels nationwide.
- Lack of primary health care for mothers and children hindered the early diagnosis and emergency intervention to prevent disabilities among them.
- The poor awareness of the importance of education and rehabilitation of people with special needs at all levels of society- family, policy makers and decision makers.

In a relatively short period of time, the Sudan has expanded in many fields, and in particular, education, which is stated by the government to be a top priority, for the development of the nation. There are serious steps towards inclusion and provision of education to children with SEN which need major efforts by official, public, non-government and civil society organizations in order to be implemented successfully.

The history of formal attempts to educate children with special educational needs goes back almost fifty years, when in the 1960s, Al-Nour established an institute for special

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educational needs, targeting children with visual disabilities. The experience was led by two expert ex-teachers. In an effort to make this institution comparable with mainstream schools, the Ministry of Education has endeavoured to implement within the special school, the same system of education applied in mainstream schools.

1.5.2 Legislative Framework

Sudan has, as many countries throughout the world have, in recent years, adopted policies aiming to promote the rights of people with disabilities to education, full and equal participation in society. But many of these laws have not yet been implemented. Nevertheless, existing national laws need to be reviewed in order to achieve equalisation of opportunities for persons with disabilities. Improving legislation and implementation strategies has been identified as one of the main issues to be tackled in the country (Ministry of Education, 2004).

Sudan has enacted two specific laws in favour of disabled persons: the Act on Welfare and Rehabilitation of Disabled Persons, 1984 and a Law Concerning the Privilege of War Disabled, 1998. A disability provision is also included in the 1998 and 2005 Constitutions of the Republic of Sudan, while the 1992 General Education Act provides for equal opportunity in education for people with disabilities.

In Sudan, a disabled person is defined as '*...a person who is permanently unable due to physical or emotional or visual or hearing defect to perform actions done by healthy persons of their age*'. (Alhaj, 2009)

This indicates dominance of the medical model in definition of disability which might lead to exclusion of children with SEN from mainstream education provision.

Article 12 of the Act on the Welfare and Rehabilitation of Disabled Persons of 1984 provides for the establishment of a fund for the welfare and education of disabled persons to finance the activities undertaken in this field. It also provides for the setting up of a National Council to lay down general policy for the welfare of disabled persons and supervise regional councils in Sudan.

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The Act makes provision for measures to promote employment for disabled persons. Specifically, it states that, on the basis of a recommendation from the National Council for the Welfare and Rehabilitation of Disabled Persons, once this body has been established, disabled persons may benefit from fiscal exemption measures when purchasing equipment for their work, as well as exemption from income tax. In addition, the Act provides for financial benefits and facilities in such fields as education, hobbies, communications and medical care.

The General Secretariat of the National Council for Welfare and Rehabilitation of Disabled Persons provided for in the Act on Welfare and Rehabilitation 1984 has not yet been established, nor have Regional Councils been established as provided for in law. The following bylaws have been approved by the Ministers' Council:

- Regulations governing the special exemptions and facilities accorded to disabled persons 1991
- Regulations for establishing and organizing centres for the rehabilitation of disabled persons 1991
- Regulations concerning the funding of disabled persons' welfare and rehabilitation of 1991
- Regulations concerning the organization of the National Council of Disabled Persons.

Other acts which concern disabled persons: (i) the Act of Associations' Registration of 1957 by virtue of which all cultural and social associations, including disabled persons' associations, are registered; (ii) the Act of Sportive and Youth Organization of 1990 which provides under Article 12 that a sports federation for disabled people shall be constituted by virtue of a decree issued by the Youth and Sport Minister in order to allow the disabled to take part in different sporting disciplines" ; (iii) the Act of the National Council for Literature and Arts Welfare of 1977 which regulates cultural and literary activities for all, including disabled people.

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Article 11 of the 1998 Constitution of the Republic of Sudan lays down general principles of justice and social solidarity, including specific mention of people with disabilities:

'The Republic of Sudan shall guard justice and prompt social solidarity to establish a basic structure of society that provides the highest standard of living for every citizen and fairly distributes the national income, curtailing excesses and preventing the exploitation of the vulnerable, elderly and handicapped'.

Article 3 of Labour Act 1997 states that: *'every person desiring recruitment and capable to work is entitled to get registered for this purpose'*. While people with disabilities are not mentioned specifically in this provision, the Labour Act could be interpreted as implicitly including them.

Sudan is reported to have passed a Law of Privileges of War in 1998 concerning persons with disabilities, but no further details could be obtained in the review of literature for the country.

The Sudan Transitional Constitution (2005) stipulates that the state should guarantee persons with SEN enjoyment of all rights and freedoms set out in the constitution especially in respect of their human dignity, access to suitable education, employment and full participation in society (article 45 (1). It guarantees all related rights as stated in all international and regional treaties ratified by Sudan (Article 32).

In addition, it is noticeably that Sudan has signed all the international and regional treaties regarding welfare and rights of children with SEN e.g. the UNESCO Salamanca Statement, (1994) and the UNCRDP, (2006) but these accords remain only on paper while in practice all these laws and legislations were not implemented. It is a bitter fact that education for all children in the country is still a right but not obligatory. Parents still have the final say on whether to educate their children or not. Parents and society institutes are not held responsible for failing to send children to schools. This interprets the existence of hundreds of thousands of children at school ages who are not educated and the high percentage of illiteracy among the population.

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1.5.3 Implementation of Laws and Legislations

The Ministry of Social Planning is responsible for matters concerning people with disabilities, reflected in its objectives and policies in the framework of a national comprehensive strategy, as well as in the 'Rehabilitation and Integration of Special Categories in Society Programme 1992-2000'. It collaborates with the Ministry of Education in formulating activities for persons with disabilities.

Recently, Sudan opted for institutional arrangements to promote the social integration of disabled persons. The Government has established an Office on Disability - most probably under the Ministry of Social Planning, but this could not be confirmed - and organized a forum on disability, with participants from governmental and non-governmental organizations and the private sector.

Recently, the Government of Sudan has put forward resolutions for:

- Exemption of disabled persons from all study fees;
- Conducting of a comprehensive survey of all persons with disabilities and elderly people in Sudan, in collaboration with the Islamic World Council on Disability and Rehabilitation;
- Establishment of an institution called Al-Amal in Khartoum, to be equipped by the most advanced instruments for the care and rehabilitation of disabled persons, and;
- A review of current disability rules in Sudan.

After effective lobbying by disabled people's organizations, the Government decided that all children with disabilities would be entitled to free education from 2002. In Sudan, there are various special institutes catering for persons with disabilities. Education in these institutes has been supported by public efforts and voluntary organizations, and is encouraged by the government. The curriculum is geared to the needs and abilities of children with disabilities. It aims to integrate disabled persons into the society and to provide them with the necessary skills.

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In 2008, the total enrolment stood at 976 students in 7 institutes with 110 teachers (Ministry of Education, 2009). The available information does not cover guidance services, vocational training or job placement.

In the sources consulted for this overview, there was no indication that consultations took place with the social partners or organizations of people with disabilities in drafting legislation concerning people with disabilities.

As already indicated, the institutional framework called for in the 1984 Act on the Welfare and Rehabilitation of Disabled Persons appears not yet to have been established and all other laws and legislations have not been put into practice to- date.

1.5.4 The Development of Special Educational Needs Provision in Sudan

As noted, the provision of special education in Sudan started in the form of individual efforts from the mid-twentieth century. At this time, many educationalists learnt Braille and taught it to the people who were visually disabled. Thereafter, the teaching of Braille spread throughout Sudan, marking the first step towards the formation of the special educational provision for children with visual disabilities. The first institute, which was established in 1961 for teaching children with visual disabilities, was the Al-Nour Institute, which at that time, catered for five preparatory classes and three vocational classes, and at its opening, a few children visual SEN joined the institute.

Following the establishment of the Al-Nour Institute, an Administration for Special Education Needs was created in 1962 to provide educational, vocational and social services to children who fell into this category. Later, many institutes for special education needs were established in the main cities of Sudan. In 1972, all those institutes were included under the Regional Office for the Welfare of Children with Special Educational Needs, and the Deputy Minister of Education was made responsible for those institutes.

Two years later, in 1974, three specific administrations, namely, The Directorate of Visual Disability, The Directorate of Hearing Disability, and The Directorate of Severe Disabilities,

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were established, each one being staffed with the related specialists. Almost a decade later, in 1984, the General Secretary for Special Education was established, subsuming the previous directorates, in addition to being responsible for a Press Unit for printing schoolbooks.

Currently, in theory, the Directorate of Special Education takes responsibility for the planning and supervision of Special Education programmes for all children with special educational needs in Sudan (Ministry of Education, 2004). However, in fact the Directorate has little or no role in private, charitable and non-government special education institutes, because in mainstream schools the lack of human and financial resources makes the Directorate unable to achieve its objectives and to meet its targets.

1.5.5 Objectives of Special Educational Needs Provision in Sudan

The Ministry of Education in Sudan believes that if a person suffers any kind of disorder or disability, which handicaps his/her capacities and responsibilities, this should not affect his/her participation in the social life which other, non-handicapped people, can enjoy. The principle that disabled people should enjoy equal rights as other people is embraced at the highest level, and therefore, disabled pupils in Sudan take part in the same activities as mainstream children (The Ministry of Education, 1992). Moreover, special educational needs education provision is concerned with the welfare of disabled children, and aims to motivate such children and help in supporting their abilities and needs.

The provision realises these aims by improving and developing the remaining abilities of disabled pupils, providing social and health services which can help disabled pupils to adapt and play their part in society, endeavoring to modify negative attitudes of parents towards their disabled children in relation to education, and rehabilitating the disabled to enable them to apply for jobs and support their social lives. Accurate diagnosis of the child's disability in order to provide more effective services; the maintenance of high standards of general health among disabled children (e.g. by inoculating them against diseases etc); and the provision of education as a major aim in achieving positive self-esteem among disabled children, are also methods adopted by the Sudanese government. Again, there are many laws, strategies, and theoretical ideas that need to be brought to ground to establish a true development of

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education of children with SEN.

1.5.6 The Strategy for Special Education at the Ministry of Education

The educational policy in Sudan, specifically articles 54-57 and 188-194, states that the education of children who are highly intelligent, as well as those who have severe learning difficulties, is part and parcel of the education system. Moreover, the Ministry of Education (2004) reported that about 20% of mainstream children nationwide may be in need of special education services. Furthermore, the Ministry has realized that the services given to children with special educational needs will not only be reflected in the welfare of children with special education needs, but it will ultimately benefit the education process in its entirety.

In support of the Ministry's belief, in 1997, the Directorate of Special Education at the Ministry of Education devised an educational strategy based on ten articles, the first of which asserted the role of mainstream schools in educating children with special educational needs, and the second article stressed the widening role of special education institutes.

In order to realise the above objectives, the Directorate of Special Education has adopted a strategy based upon a number of ambitious projects, such as the project of widening the scope of implementing the inclusion policy for children with special educational needs in mainstream schools (The Ministry of Education, 2004). However no practical steps have been taken to put these policies into practice.

1.7 Problems Encountered Within Special Education in Sudan

The latest report on Special Education (ADD, 2008) drew attention to the fact that special education, though formally introduced 50 years ago, is still in the developmental stages, and in its infancy in comparison to that of the developed countries such as the USA, UK, and others in Western Europe. In this respect, Alhaj (2008), argues that the successes achieved thus far will ensure that special education in Sudan has an excellent future and will continue to develop, but the report warns that this positive future depends, to a large extent, on the removal of certain obstacles, which are:

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- **Lack of Special Buildings**

Due to the lack of policy and financial resources, existing school buildings cannot be adapted for inclusive schooling. The heaviest concentrations of children with special educational needs are in segregated centres in the urban areas, and therefore this is where the special education centres need to be located. However, the urban areas are already crowded, and since easy access to such institutes is a prime requirement, it has proven difficult to find suitable sites, quickly. Currently, the Ministry of Education is working hard to find suitable sites on which to build centres with modern equipment for disabled pupils.

- **Shortage of Qualified Staff**

The shortage of qualified staff is a major obstacle to the attempts to provide special education in Sudan, and the Ministry has been obliged to employ unqualified staff in special education centres. This could mean that the output of those staff is less effective than if they had been properly trained for the task in hand, and, in turn, the achievements of the pupils are negatively affected. This problem should be solved eventually, by training and recruiting recent graduates in special education centres.

- **Lack of Social Awareness Towards Disabled People**

In noting that the social environment, in which disabled children live, is critical in terms of their growth and progress in different areas, Alhaj (2009) draws attention to the situation in Sudan, where some disabled children have, unfortunately, been subject to misunderstanding and rejection by their families. Consequently, this has caused a great number of those children to suffer from the inability to adapt both to their handicap, and to their social environment, a set of circumstances which delays their progress by several years. The government of Sudan is still working on how to educate the general public about this.

- **Lack of Attention to the Gifted**

It is noticeable that the Special Education voluntary and charity run programmes in Sudan focuses on the disabled, and does not direct equal attention to the children identified as being gifted. This is a great loss for the Sudan, and a practice that is in direct contradiction of the aims of the development plans which concentrate on developing the nation's human resources. If those

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with special talents are not encouraged to develop their full potential, there may be a waste of potential human resources, and a loss of the knowledge that those gifted children might have produced as they matured.

- **Lack of Research**

The libraries and research centres in Sudan suffer from a serious shortage in the number of research papers and textbooks on the subject of special education. This is due to the small number of specialists in special education in Sudan who have majored in that subject, a situation which is likely to affect the work of the staff in special education centres and the availability of solutions to the problems facing special education provision. Such a lack of research will make it more difficult to provide effective services for the disabled.

- **Lack of Interest Shown by the Mass Media Towards Special Education**

The mass media now constitute one of the most important vehicles for introducing new concepts and situations to the general public, and influencing their attitudes. In Sudan, however, the mass media, as in other developing countries, do not make enough effort to increase the awareness of Sudanese citizens toward disabled people and disability in general. Furthermore, they do not pay attention to the production of educational programmes on television for those disabled people staying at home, or even for the people who work with the disabled.

A brief review of the situation in Sudan and some of the developing countries shows that in spite of the factors of illiteracy and poverty in most of these countries, inclusion has had the chance to emerge through the education laws and policies of these countries. It has also been applied in some pre-schools and regular schools, even though special services and institutes have often not supported it - a situation which has adversely affected its progress and implementation (Ministry of Education 2004).

1.8 The Future Role of Special Education Institutes

To start with, it should be mentioned that stressing the role of mainstream schools in educating children with special educational needs does not in any way abolish or even belittle the role of

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special education institutes, such institutes may remain an option for generations to come. However, currently, the directives in educating children with special educational needs are geared towards allocating other roles for such institutes to play. These are:

- Creating specialist programmes for teaching bi- or multiple-disability students who cannot be accommodated in mainstream schools.
- Transforming such institutes into centres that provide supportive services for mainstream schools that are integrated, to enable them to develop the skills, means and educational tools for the success of programmes in accordance with their objectives.
- Transforming such institutes into training centres where specialist training programmes for teachers, educational supervisors, and administrators, and in some cases for parents, are held.
- Designing early intervention and co-ordination programmes which target children with special needs from their birth onwards.
- Designing programmes for training and qualifying people with special needs who require qualification, and giving them the appropriate training that suits their needs (Ahmed et al 2008).

1.9 Factors That Hinder the Development of Special Education and the Spread of its Programmes in Sudan

Three visits to Sudan for data collection i.e. interviews with teachers and principals, visits to schools, universities and teacher training institutes established that there are many factors which have hindered the development of special education and the spread of its programmes, these can be summarized as follows:

- Sudan's constitution 2005 insists that education is for all, and that all people are equal in all fields of life. Nevertheless, the laws and legislations regarding the right of education for people with SEN were not put into practice. However, education according to the law is a right but it is not compulsory for parents to send their

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children for education. It is worth mentioning that all the past and current attempts to include pupils with SEN were solely left to personal efforts by charity and private sector institutes, where the majority of these children are educated.

- Lack of care administered to children with special needs, to allow those children to be effective members of society. There is still no budget dedicated to the development of the sector of special education. In addition, the government has failed to train and recruit qualified teachers of SEN, psychologists, and social workers for mainstream schools in order to meet the needs of children with SEN.
- Despite the fact that Sudan has concentrated on human resource development, people with special needs have been left isolated; in fact, only very few teachers or researchers have specialised in special education needs and derived insights from the experiences of the western world with regard to this experience and thus availed themselves of the modern and ideal approaches to teaching children with special educational needs.
- Universities and higher education institutes in general have not contributed to the development of special education and the spread of its programmes. In addition, they are not providing training to the staff working in special education institutes. The University of Khartoum is the only higher education institution that has a Department for Special Education which was established in June 2006. However, the taught courses for teachers- to-be are theoretical and include no practical training in SEN.
- Lack of academic research sponsored by academic institutes to study various aspects of disability and the size of the problem in Sudan. Such research is very important in finding solutions for the psychological and social impact of disability and to attempt to find the best solutions, programmes, strategies, and alternatives for the disabled so that they might play effective roles in Sudan. Moreover, the government of Sudan has limited involvement in the conferences, symposiums, seminars, and research on the themes of special educational needs and various aspects of disability.

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- Lack of modern technology to serve people with special educational needs, and in particular lack of awareness of the benefits to be gained by those people from computer technology. There are no laboratories established for that purpose.
- The contribution of the private sector, in the form of benefactors and nongovernment organizations NGOs, to the development of special education has been very little, whereas there are 250 private basic schools in Khartoum, none of which accepts children with SEN (Alhaj, 2009).
- Parents' councils in schools have recorded a significant failure to effectively involve parents in decision-making with regard to the education process.
- The Special Education Unit at the Ministry of Education has made no significant contribution to special education, predominantly to the development of special education curricula, study plans, and suggestions. Additionally, it has not contributed towards the development of the new perception by which the causes of special education needs are discussed.

1.10.1 Special Education Institutes

Despite the fact that this study is about training of teachers and education provision for children with SEN in mainstream schools, nevertheless, special education institutions will be discussed as they are well known for educating the majority of such children who seek education in the absence of the mainstream schools role in this area.

Three different types of institutes in Sudan are concerned with the formal education of disabled children. These institutes are: (a) Al-Amal institutes for hearing Disability, (b) Al-Nour institutes for visual Disability, and (c) the institutes for those with mental disabilities and severe learning difficulties.

Table 2.1 indicates all the educational institutes, types of disability they cater for, and the

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programmes available within the Sudan during the academic year 2007/2008.

Table 1.1
Educational Institutes, Types of Disability (2010)

Disability	No. of Institutes	Services		Type of institute			No. of Pupils
		Academic	Groups	Government	charity	Private	
Visual	5	4	1	3	1	1	350
Hearing	14	10	4	1	9	4	480
Mental	9	7	2	-	6	3	340
Multiple	2	1	1	-	1	1	220
General	2	1	1	-	2	-	220
Total	23	23	9	4	19	9	1610

As can be seen from the table, the number of charity and private institutes has shown an increase whilst the number of programmes in government funded institutes has declined. However, there are no statistics available on the number of children with SEN attending basic schools in the country. It is noticeable that the number of children attending charity and private institutes has dramatically increased from the previous two years. This negative indication that mainstream schools are not resourced and adapted to educate these children.

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Table 1.2
Number of SEN Teachers and Assisting Staff (2010)

Disability	No. of SEN Teachers				No. of Assisting Staff	
	Government Recruitment	Private Recruitment	Qualified	Un-qualified	Government Recruitment	Private Recruitment
Visual	32	28	24	36	33	19
Hearing	24	26	32	18	25	25
Mental	12	23	18	17	20	23
Multiple	05	20	12	12	21	20
General	06	19	13	12	14	18
Total	79	116	101	96	114	105

Table 2.2 shows the great shortage in SEN teachers with the number of unqualified teachers being almost equivalent to the number of qualified ones. It also shows the government recruitment of teachers and assisting staff is very weak compared to the charity and private recruitment. This confirms that the lack of budget dedicated to special education is the main obstacle in the development of this area.

1.10.2 Al-Amal Institute for Hearing Disability

Education of children with hearing disabilities started in 1972 when Al-Amal Institute was established in Khartoum with a public initiative. Thirteen other institutes followed in seven cities. There is only one institute for secondary education with 69 students and six institutes for basic education. These institutes are suffering huge shortages of financial resources, qualified teachers, suitable buildings, hearing and teaching aids in addition to the large numbers of applicants that the poor resources available in these institutes cannot possibly accommodate. The government financing has decreased dramatically and as a result, parents are required to pay for the cost of their children's basic and secondary education at these institutes, while other children who attend vocational training are sponsored by the Catholic Church to study at Mary-Joseph Training Centre (Alsammani, 2009). The institute is well equipped with sound-proof rooms and hearing aids. It is

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worth mentioning that Al-Amal Institute is the first and the only institute to train teachers in sign language. Actually the adapted Sudanese signed language was invented and training was offered for the institute staff in this internally.

1.10.3 Al-Nour Institutes for Visual Disability

It is estimated that there are about 350,000 blind people in Sudan (Census, 2009), one third of whom are children of school age. However, there are only five institutes that accept only 60 pupils at basic school level. This reflects the huge difference between the number of children with visual disabilities and the places available for their education in Al-Nour institutes. Urgent official and nonofficial efforts are required to close this gap through increasing the number of institutes and the introduction of inclusion and integration of these children into mainstream schools. The Al-Nour Institutes are situated in Khartoum, Atbara, Gadaref and Juba. The institutes in the latter three cities were established recently, while in Khartoum the institute was established in 1961 and more than 400 students have graduated from there. Some of them continued to university level while some others work as teachers at Al-Nour Institutes, basic and secondary schools and universities.

1.10.4 Child Welfare Centre (Ministry of Social Welfare)

The Child Welfare Centre for the disabled accepts children from birth to the age of 12 years, providing them with medical, educational, psychological and social welfare, in addition to other services such as accommodation, a toy library and many other supportive services that the children need.

Furthermore, the teachers provide disabled children with valuable skills through the use of modern methods of teaching. Teachers work to provide additional support to the pupils in order to include them later in public schools depending on their abilities. This centre also plays a supportive role in helping parents to interact more easily with their children (The Unit Special Education, 1992).

There are some necessary conditions stipulated by this centre for acceptance of disabled children, such as:

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- Children with multi-disabilities are accepted, if they are able to benefit from the services of the home.
- Children with severe disabilities, or who are with hearing disabilities and visual disabilities are not accepted.
- Children must be referred by a well-known hospital and must have a medical record detailing their disability.
- Children who are really in need of more concentrated care and who are between 6 months and 10 years old will be given accommodation in this home.
- Children who do not need accommodation, i.e. day pupils, are accepted up to the age of 12 years old.

1.10.5 Al-Salamabi Institute for Children with Hearing and Speech Disabilities (Ministry of Social Welfare)

This institute was established in 1978 by sponsorship from the Canadian Relief Association and the Ministry of Social Welfare. It was named after Mohammed Ahmed Al-Salamabi who founded institutes for hearing and language for children and adults with hearing and speech disabilities in different cities of the country. The Institute provides segregated education for pupils of 4-7 years of age at kindergarten and basic school level. Sign language is used as teaching method and medium of communication. Hearing aids and sound-proof rooms are available.

The long term objectives of the Institute were:

- Assisting the government in achieving the national programme of rehabilitation.
- Evaluating and training people with hearing and speech disabilities in the country.
- Education of people with hearing and speech disabilities in the community for positive participation and reducing dependency and unemployment among them.

The direct objectives of the institutes were to:

- Provide programme for education and rehabilitation for children with hearing and speech disabilities.
- Achieve coordination of efforts contributing to this sector including local and foreign

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donations.

- Collect information for the establishment of other similar institutes in different regions of the country.
- Provide necessary data related to the participation and inclusion of children with hearing and speech disabilities.
- Provide training in the form of a diploma in the education of children with hearing and speech disabilities.
- Select teachers for abroad short training courses on education of hearing and speech disabled children.
- Providing vocational courses on electronic engineering (maintenance of equipment).

The main problems faced by the institute that affected the achievement of its objectives and targets are:

- Remoteness of the location made it unreachable to the majority of target groups.
- Shortages of financial and educational resources.
- Lack of means of transport to and from the institute whereas public transport is rare and expensive.
- The unsuitable curriculum for hearing and speech disabled children (the standard national curriculum is in use).
- Lack of trained and qualified teachers. This is because teaching could be viewed as an unrewarding profession in the country as general.

1.10.6 Sakina Centre for Children with Mental Special Needs and Down's Syndrome

Statistics shows that there are 296,486 children with mental disabilities in Sudan (Alhassan, 2008). Nevertheless, there are only 9 charity and private institutes that care for these children.

The Sakina Centre was established by the Faisal Makki Association as a response to the suggestion of a mother of a Down's syndrome child. The number of the children now attending this centre had reached 102 by the year 2009. Other 130 children with Down's syndrome are still on the waiting list, waiting for a chance to join this centre. The aim of

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this centre is to help those children with Down syndrome by developing various abilities and skills such as: gross motor, fine motor, intellectual, language, social and self-direction skills. Moreover, the centre provides the children's parents with information and support in their daily lives, even when the patients have left the centre.

This centre caters for children from birth up to 13 years old, and allows them to take part at different educational levels, which are:

- Early childhood stage, (0-36 months).
- Pre-school stage, (3-6 years old).
- Elementary stage. (7-13 years old).

Additionally, the centre also provides children with medical and social support.

1.11 Special Education Needs Department (University of Khartoum)

The Special Education Needs Department at the University of Khartoum was established in 2009 to play two major roles in terms of special educational needs. The first is related to the legislation of the universities which allow students with visual disabilities and other physically disabled students to join classes. The second is the establishment of the Special Education Needs Department in the Faculty of Education, University of Khartoum; where students can qualify to work as teachers of disabled pupils in special or ordinary schools after graduation. They can also work in other related services in the area of special educational needs such as social or educational services.

Additionally, there is a Master's programme in Special Education Needs operated by the Department of Educational Psychology. The Department of Special Education Needs is setting up a Diploma programme for those who have already graduated from the university and require further studies in special education needs. When this has been successfully completed the graduate will be offered a place on the Master's course.

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1.12 The Implementation of Inclusion Policy

Inclusion in Sudan has two stages:

Partial inclusion: at this stage, the programmes for children with special educational needs who are included in mainstream schools are being designed. Such a service embraces the inclusion of children with minor special education needs in mainstream schools. There, children receive the same education as the mainstream school children, and thus these disabled children have the opportunity to work with mainstream children both in terms of class activities and extra-curricular activities.

Moreover, the classes of children with special education needs are divided into two groups:

- Classes that implement the curricula of special education institutes, such as the classes of children with (mild mental disabilities), and children with (severe mental disabilities).
- Classes that implement mainstream curricula are the classes for children with visual, hearing and speech SEN.

Full inclusion: In addition to the above, advanced education resources such as the provision of resource rooms are used, and there are peripatetic consultant teachers who travel from one school to another.

Mosnid (2008) defined special education services as follows:

- Resource Room programmes: These are considered as a means by which children with special educational needs can be integrated into mainstream schools. This educational concept involves the following:
 - a) Allocating a special room in a mainstream school equipped to accommodate children with special educational needs. Such a room will have all necessary staff and equipment to cater for the needs of the group assigned.
 - b) Keeping children with special educational needs in the classes of mainstream children, or bringing the former children to mainstream classes if they were segregated beforehand in their special education institutes or even in the schools that were separated from mainstream schools.
 - c) Ensuring that children with special educational needs spend most of their working-day with mainstream children.

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d) Encouraging children with special educational needs to frequent the Resource Room to benefit from the resources they have at their disposal there, each in accordance with his/her difficulty. The classroom in which the children study is directed by the special education teacher and the teacher of special education needs.

- **Mobile Teacher:** This is one of the means of including children with special needs in mainstream schools. It is an educational mechanism that involves the following principles:

a) Registering children with special education needs in the school nearest to their homes, or maintaining them in the school nearest to their homes if they were already registered there.

b) Keeping children with special needs in the classes with their mainstream peers for their working day.

c) Ensuring that a specialist teacher in special educational needs commutes between mainstream schools that have children with special needs, in order to provide the service that they need, in accordance with the policy outlined by the following:

- The number of children with special needs allocated for each teacher,
- The nature of the schools they visit,
- The number of schools they visit,
- The distance covered by each peripatetic teacher.

d) Ensuring that the home base of the teacher is at the education authority, or at one of the schools he/she works for.

e) Ensuring that the commuter teacher has the means of transportation necessary.

- **Consultant Teacher Programme:** This is one of the means by which children with special educational needs are included into mainstream schools. It is a fundamental educational concept based on using the services of specialist teachers in special education, who make visits to mainstream schools which have children with special education needs - in the same way as a peripatetic teacher - to advise and provide consultation to teachers about dealing with such children. Furthermore, consultant teacher's centre should be at the education authority, or at one of the schools he/she

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works for. Like the peripatetic teacher, this teacher also needs a means of transport.

Special Education Follow-Up Programme: This programme can be defined as a set of programmes available to the General Secretariat of Special Education to follow up the groups that do not currently benefit from the services provided to children with special educational needs. This is a provisional programme that will come to an end as soon as the special programmes for special education are introduced to the targeted group in mainstream schools.

Utilising and using the available resources to make schools more inclusive for all children is the eventual goal of inclusion. The definitions of education services mentioned by Mosnid, (2008) in fact are imbedded in the indicators and resources of the Index for Inclusion (Booth and Ainscow, 2002). It is not only the identification of these indicators and resources is required to ensure a successful inclusion, nevertheless, only the use of these resources and services in mainstream schools is the only way to make inclusion a reality and guarantee its success.

1.13 The Targeted Group for Inclusion

Inclusion in Sudan targets two groups:

The first group is comprised of those pupils who have never been traditionally assigned to special schools, and who have always been taught in mainstream schools, but who nevertheless, have some special need. This category includes the gifted, the highly intelligent, those with some kind of learning difficulty, the physically disabled, the immobile (those in wheelchairs), those with visual disabilities, pupils with emotional and behavioural difficulties, and others who lack concentration. These children have always been educated in the mainstream environment but there has been no special training for their teachers and these children have had to take from the educational system what they can. Naturally, the amount of benefit they have been able to derive from the educational curricula, has differed according to their ability to adapt to what has been offered, and the degree to which teachers, without any training, may have gathered some insight into how to assist those particular pupils.

The second group consists of those children who have traditionally been educated at special education needs institutes, or within separate classes related to mainstream schools, and pupils in

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this category are those who are totally blind, or deaf. However, it has been argued (Mosnid, 2008) that these children also, should be integrated with their counterparts in mainstream schools.

1.14.1 Attempts at Inclusion by the Ministry of Education

The Ministry of Education decided to start the policy of inclusion of children with special educational needs within mainstream schools in 1999, and the first and only state to implement this was Khartoum, the capital city. The experiment was deemed by the Administration of Special Education as a complete failure (Alhaj, 2008). The reasons as cited by the Administration were lack of proper planning and administration of the process whereas:

- Teachers and supporting staff were not trained and equipped with the necessary skills to meet the needs of pupils with SEN.
- No adaptations were made to the schools environment to facilitate the movement of children with different SEN. That has resulted in serious problems and scores of complaints from both children and their parents.
- Lack of the suitable curriculum and resource rooms put an additional burden on teachers who were already suffering the pressure of overcrowded classrooms.
- Implementation of inclusion was rushed without considering the required planning and preparation.

As a result, the majority of children with SEN returned back to the segregated institutes to continue their education.

1.14.2 Inclusive Schools

a) Aims of Inclusion in integrated schools

The aim of inclusion was to achieve a range of objectives. Essentially, the intention was to provide a mainstream environment for children with SEN e.g. severe disability, speech, hearing, physical, and visual SEN. This was believed to bring benefit to such children through facilitating their interaction with other peers, and providing a better environment in which they could develop their potential, according to their abilities, in different spheres of life.

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b) Strategy for Achieving Inclusion in main schools

The methods used to achieve the desired inclusion were the provision of additional materials, the employment of special education teachers to deal with the target children, the provision of speech and language experts, and psychological, educational, physical and medical services all within the mainstream school setting. Collectively, these methods were aimed at improving the overall learning environment for the children referred to above, and thus provided the advantage of improving those children's chances to develop and reach their potential.

In addition to the schools for those pupils with hearing or speech SEN, more schools were opened by the Ministry of Education on an experimental basis for the inclusion of pupils with SEN and those with mild SEN at the elementary stage in Khartoum. In 2009, the Ministry of Higher Education also established in the University of Khartoum, the Department of Special Education. This department is aimed at accepting students who will be specialising in teaching children with moderate and severe SEN. A number of students with visual and physical special needs, as well as those with speech special needs are enrolled in Sudanese universities, and they receive support from teachers and staff at the universities.

1.15 Attempts to Assess the Experience of Inclusion in Sudan

There have been several attempts at conducting academic research targeting the impact of the inclusion in the pedagogical environment with regard to some variables, such as: students' academic qualifications, social skills, adaptability behaviour, and other related issues. However, such studies have not yet come to fruition, and their results are much awaited, since their outcome will form the basis for future direction. Because of this lack of research feedback, the assessment of special education needs programmes in mainstream schools will depend, to a large extent, on field studies conducted by the supervisors of pupils with special education needs via their regular visits and comprehensive reports that include significant information with regard to: the nature of the programmes, their strength, their weaknesses, the problems encountered, suggestions and recommendations, and the solutions that are deemed appropriate for the problems faced.

It should, however, be noted that in the context just outlined, assessing the policy of inclusion in

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Sudan is done with the aim of knowing how and where to raise the standard of special education needs services, both qualitatively and quantitatively, rather than with a mere crude monitoring of these services' success or failure. This is because it is thought by educators that such services are indispensable for schools that cater for the requirements of students with special educational needs in Sudan. Moreover, the General Secretariat of Special Education in the Sudan stipulates a number of conditions for the proper implementation of the inclusion programme. These conditions are: the positive attitude of school administration towards inclusion; integrated classes should not exceed 25 students per class; the availability of supportive systems through which the basic needs of inclusion such as short periods of training are given to teachers. These short periods of training cover the concept and objectives of inclusion to change or re-orient teachers' attitudes positively towards children with SEN, and qualify those teachers to teach inclusive classrooms (Ahmed 2008).

1.16 Conclusion

Special education in Sudan is still in its early stages, and policies that foster and support inclusion are still cautiously and unsystematically applied. Various studies have highlighted the fact that Arab countries are still in need of more legislation and need to take greater interest in the problem, if they are to improve their education systems for pupils with special needs. They could also benefit greatly from studies carried out in other countries and avoid some of the problems that they might face in including children with special education needs in mainstream classrooms.

Sudan has suffered from the absence implementation of legislation and policies of inclusion. In addition, there is a great need to recognise the fact that ordinary schools and nurseries can accommodate children with SEN. The majority of special education services in Sudan are provided by special schools (segregation) in the institutes mentioned in section 1.9.1 in this chapter. Inclusion experiments have been established in various schools and kindergartens in the last few years. However, only pupils with SEN are allowed to join, and they are included mostly on a part-time basis within the regular classes and other activities. It should be mentioned that although Sudan has tried hard through its institutes to implement the policy of inclusion, there is still a long way to go before a successful outcome is achieved.

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There should be a clear separation between the role and responsibility of educating children with SEN between the ministry of education and the ministry of social welfare. The role of the ministry of social welfare should be restricted to provision of resources and social support for children with special needs, whereas the ministry of education should take the full responsibility and supervision of education of children and adults with SEN. The current overlap between the services provided by the two ministries reflects a serious lack of policy orientation in relation to inclusion as well as wasting of resources that are very much needed for inclusion of children with SEN in mainstream schools

Measures to guarantee the right of people with disabilities to education on an equal basis with other pupils are provided for in Sudan through the Act of 1984 on the Welfare and Rehabilitation of Disabled Persons that established a fund for the welfare and rehabilitation of disabled persons. The General Secretariat of the National Council for Welfare and Rehabilitation of Disabled Persons, provided for in the 1984 Act, has not yet been established, however, nor have financial resources been allocated to implement the Act. Sudanese legislation concerning persons with disabilities and children with SEN is primarily welfare-oriented, referring more to the obligation of the State to support disabled persons through State provisions, than to the promotion of employment opportunities. A firm policy commitment is required on the part of the Government before education prospects of Sudanese disabled persons and children with SEN can improve.

Chapter Two

Special Educational Needs (Literature Review)

Special Educational Needs (Literature review)**2.1 Introduction**

As the previous chapter on the Sudan context of SEN concludes, special education is still at early stages, with a lack of literature and empirical research in this field. A literature view of special needs education helps to establish a theoretical framework for the present study through which advancement and shortcomings in Sudanese context can be identified and assessed in comparison with the global context of SEN. This chapter reviews literature on the concept of special educational needs, SEN models and the ways in which these needs may be met within education systems. The chapter, in this way, sets out the background for the theoretical and empirical consideration of relevant teacher competencies in later chapters.

The field of special education has developed relatively recently and unevenly in different parts of the world (Ainscow et al, 2004). Over time, education systems have explored a variety of ways of responding to children with “disabilities” or who experience difficulties in learning. Special education may be provided as a supplement to general education provision, or through a separate system. It is, however, not easy to identify the number of children who receive special education in one form or another, because of differences in terminology and categorisation systems from country to country, not to mention the scarcity in many countries of reliable, up-to-date information. Nevertheless, some attempt must be made to clarify terms and to explore key issues and trends in the provision of education for children with SEN, which have implications for mainstream teachers.

The discussion in this chapter is presented in two main sections. In the first of these, definitions of Special Educational Needs are considered and alternative terms found in the literature are noted. The second part of the chapter provides an overview of ways of meeting special educational needs, beginning with a brief discussion of some models or paradigms which are often claimed to underlie different types of provision. Segregated provision is briefly considered; however, the main focus is on inclusion. The rationale for the inclusion of children with SEN in

mainstream settings is discussed, as well as information presented on the ways in which inclusion is implemented in the policy and practice of various countries.

Since some authors use the terms integration and inclusion interchangeably, while others maintain that they differ in both their underlying philosophy and implications for practice, an attempt is made to unravel the terminology and relate it to the wide range of types of provision in existence. Implications of inclusion for parents and children, and for the character of schools are discussed, and then research evidence on the academic and social effects of placing children with SEN in mainstream settings is considered. Finally, concerns currently being voiced about the recent trends in favour of 'full' inclusion are highlighted and the concept of 'responsible' inclusion is introduced.

2.2.1 Terminology and Definitions

In the UK, the term special educational needs (SEN) is relatively recent, largely emanating from the language and philosophy of the Warnock Report (DES, 1978). It is an umbrella term, describing a wide range of difficulties which may impair children's ability to achieve during their time in school (Stakes and Hornby, 2000).

Writers on special needs often do not define the term. However, the term special needs is increasingly used to include all children who, for various reasons, have difficulty achieving their full potential in school, including not only those traditionally regarded as in need of special education, such as those who are deaf, blind or who have learning difficulties, but also those who are dyslexic or gifted and those with emotional or behavioural difficulties (Hornby, 1998).

In the UK, the Warnock Report (DES, 1978) suggested that the concept of SEN should include not only children with disabilities or those in special schools, but as many as 20% of all school age children, suggesting a very broad understanding of the concept.

From this broader perspective, special educational needs can be viewed as the result of a mismatch between the knowledge, skills and experiences students bring to the learning situation, and the demands made on them (Beveridge, 1999).

In the UK the Code of Practice (DfE, 1994) refers to eight different types of special educational need: learning difficulties (categorised from mild to profound); specific learning difficulties; problems with basic literacy or numeracy skills, (which stand in contrast to the child's ability in other areas); hearing difficulties; visual difficulties; physical disabilities, resulting from a congenital condition or from injury; medical conditions such as epilepsy or asthma; speech and language difficulties; and emotional and behavioural difficulties which make it difficult for children to function effectively in school, or disrupt the education of other pupils.

The updated Code of Practice (DfES, 2001a) says that children have special educational needs if they have a learning difficulty which calls for special educational provision to be made for them. Learning difficulty is defined as meaning "significantly greater difficulty in learning than the majority of children of the same age," or "a disability which prevents or hinders them from making use of the kind of educational facilities generally provided for children of the same age in schools within the area of the LEA" (DfES, 2001a: p.6).

Such definitions are, however, controversial. Booth et al (2000) reject the use of the term 'special educational needs', arguing that it is associated with an approach that can be a barrier to the development of inclusive practice in schools. In their view, it confers a label that can lead to lowered expectations; it focuses attention on certain categories of difficulties, thereby potentially deflecting attention away from others; it can encourage teachers to see the education of children with SEN as the responsibility of a specialist; and by attributing educational difficulties to student deficits, it poses the risk that barriers to learning emanating from school cultures, policies and practices may be overlooked.

Some of these arguments appear to be justified by, for example, the problems clearly manifested in the definition of Special Educational Needs offered by Okpanachi (1995). He says that children with SEN are those who "differ from the norm in mental characteristics, visual and hearing abilities, communication abilities, social behaviour, or physical characteristics to the extent that special education services are required for the child to develop to maximum capacity" (p.3). In this definition, the term 'differ from the norm' can be perceived as discriminatory, while

the claim that 'special education services are required' may encourage the impression that children with SEN can only be taught by specialist teachers or in special facilities.

To overcome such difficulties, Booth et al. (2000) prefer the term 'barriers to learning and participation', a broader term which encompasses such issues as race, social class and gender, which do not fall within the concept of SEN as defined, for example, in the UK's Code of Practice (DfE, 1994).

The term SEN is also challenged by Mittler (2000) who argues that the word 'special' is anachronistic and discriminatory and asserts that many of the children who would be covered by current reconceptualisations, such as those living in poverty, are 'special' only because, so far, the education system has not been able to meet their needs.

Moreover, the word 'needs' is also open to challenge; Corbett (1996, cited in Mittler, 2000) suggests that it has connotations of dependency, inadequacy and unworthiness. Nevertheless, as Mittler (2000) acknowledges, special educational needs terminology survives because it is not easy to find an acceptable substitute, and also because it is embodied in legislation.

As we have seen, even within the UK there are different understandings of the term 'special educational needs', and some controversy surrounding it, leading writers to offer alternative terms. The difficulty such differences of usage present when reviewing the literature or comparing practice, is further compounded when provision for SEN is examined from an international perspective, because of the widely differing terms employed from country to country. For example, people who, in the UK, would be said to have severe learning difficulties are called intellectually disabled in New Zealand, mentally challenged in Barbados and mentally retarded in the USA (Hornby, 1998). 'Mentally retarded' is also the term used in Sudan.

In the USA, Epstein (1984) uses the terms, 'special children' or 'children with special problems', and occasionally, 'people with physical, hearing and visual disabilities' or 'people with mental disabilities', without, however, defining any of these terms. Interestingly, the terminology she uses apparently reflects the deficit model, seeing problems as residing in the child, although the

tenor of her book is rooted very much in the social model, focusing on the way problems can be created - or avoided - as a result of the attitudes and behaviours of teachers and other children.

Gearheart, et al. (1995: p.7) use the term 'exceptional students' to refer to 'all students whose educational needs are not effectively met through the use of the standard curriculum', i.e. putting the emphasis on the demands made by the school, rather than on any weakness or disability in the child. At the same time, they use terms such as 'mental retardation' to discuss specific categories of special need because 'from a practical point of view, they remain the most efficient terms of reference' (p. 5).

Polloway et al.(2000), introducing their text on strategies for teaching 'learners with special needs' identify as their target group "students who traditionally have been identified as mildly disabled or experiencing learning difficulties" including sub-groups such as "mentally retarded, learning disabled, educationally handicapped, emotionally disturbed [and] behaviourally disordered" (p. 3). They note, however, that target populations and the terminology used to describe them vary from time to time and from state to state, depending on laws, policy decisions and other related developments, and that such labels are not very helpful in indicating precisely which teaching strategies should be used.

Again, in the USA, Osborne (1999) uses the term 'Children with Disabilities' to identify those children eligible to receive special education and related services under the Individuals with Disabilities Act (IDEA), defined as:

"children . . . with mental retardation, hearing impairments including deafness, speech or language impairments, visual impairments including blindness, serious emotional disturbance, orthopaedic impairments, autism, traumatic brain injuries, other health impairments, or specific learning disabilities; and who, by reason thereof need special education and related services."
(Osborne, 1999: p. 8)

It is interesting to note that in Sudan, although some research studies by Sudanese academics have used the term 'special needs', government policy documents and other publications

habitually employ the terms 'disabilities', 'handicap' and 'mental retardation' (see the Introduction).

It should also be noted that, in Sudan, until very recently, no specific definition of special needs could be found in educational policy or research, though operational definitions can be inferred from the admission criteria of the three types of special educational institutions. Those for the blind/visually disabled specify vision in the range 6/24 - 6/60 in the strongest eye or both eyes with the aid of corrective lenses; those for the hearing disabled specify hearing loss of at least 80 decibels in the strongest ear or both ears, after treatment and use of hearing aids; those for mental disabilities specify IQ in the range 50-75.

In Sudan, a government document of the Committee of Education of Special Categories CESC (2005), children with special educational needs are defined as those who "are different from their peers in their cognitive, physical, emotional, visual, hearing, behavioural, academic or communicative abilities". It goes on to note that "These differences entail necessary adaptations of the learning requirements and school equipment by using methods, techniques and programmes to enable these children to make use of the natural educational environment" . However, the term special categories include, besides disabled children, street children (homeless children), refugees, displaced, young offenders and children who live in crisis areas.

From these definitions, it seems that the concept of special educational needs in Sudan is not the same as in the one that is currently emerging in, for example, the UK and US. The Sudanese definition admits the need for adapted education, but it sees children's difficulties with learning in terms of weaknesses or abnormalities in the children themselves. This is different from the definition of 'special needs' given by Beveridge (1999) as well as from the one of 'exceptional children' given by Gearheart et al. (1995) in which learning difficulties are seen as the result of the interaction between the child and aspects of the school system, e.g. the curriculum.

To sum up this far, an attempt has been made in this section to establish some understanding of the connotations of the term 'special educational needs' and other terms used to denote the same concept. Not only the terminology, but even the concept, has been shown to be problematic and

it has been suggested that different terms, definitions and interpretations may reflect differences in attitude and philosophy. This point will be further explored later in this chapter, where educational provision for children with SEN is considered.

2.3 Theoretical Framework

2.3.1 Models of Special Educational Needs

Models of disability and SEN provide a reference point for society in relation to how laws, regulations and structures are developed and how they impact on the lives of disabled people (Cole 2008, Mitz, 2007). There are two main theoretical frameworks that have influenced modern thinking about disability and these are the medical model and the social model (Booth and Ainscow, 2002, Rustemier, 2006). Both models position people with disability differently.

In the classic medical model, disabled people are seen as the problem and the expectation is that they need to change and adapt to circumstances that are presented to them with no acknowledgement that society needs to change. It focuses upon how a disabled individual's medical condition limits their ability to access a range of services. Under this model people are labeled with disability based on physical or psychological criteria (Depoy and Gilson, 2004). The entire goal is to bring disabled people to what so-called normal life (normalization). This implies that labeling begins with naming what human characteristics are acceptable within a normal range of ability. Everything that does not fit into this range becomes abnormal and needs to be corrected. The focus here is obviously on what people cannot do rather than what they can do. It is clear that the medical model presumes that the way in which society is structured has no bearing on disabled people. The condition or problem is isolated to the individual and responsibility is placed on the individual for the cause and the outcomes of his/her disability (Boxall, 2002).

In Sudan, Special Education falls under the medical model. The rationale becomes as noted by Depoy and Gilson, (2002) to cure or fix the children with SEN. In other word, schools only accept only those who can fit in mainstream education. This resulted in the situation that those

children who fall outside the range of what so-called 'normal' human conditions are considered 'abnormal' and sent to special segregated schools or eventually, out of the education system.

However, the social model of disability acknowledges how society discriminates against people with disabilities and excludes them from involvement and participation. It views all human behaviour and ability ranges as acceptable, normal human outcomes. This model argues that the greatest limiting factor is not individual disabilities but rather the limitations and barriers presented by society. It views that the definition of what considered a disability changes over times as each culture determines what ability ranges are acceptable or unacceptable. It also emphasizes that having disability automatically mean total helplessness.

Under the social model framework, disability is redefined in terms of what barriers that are "built into the social fabric" in areas like culture, society and architecture (Hughes and Paterson, 1997, p.328). They argue that oppression of people with disabilities is created through cultural traditions of exclusion and the construction of normal.

Shakespeare and Watson (2002) argue that the social model was massively important in the British disability movement. It enabled the identification of a political strategy that used in removal the barriers and promote the inclusion of people with SEN, and the impact of the model in disabled people themselves by replacing the traditional model view of disability with a social model view. This confirmed the need of society to change in order to meet the needs of the disabled and change their lives to become productive citizens. This is actually a very good example which should be followed to improve the quality of life and education of disabled people.

Additionally, a bio-psychosocial (interactional) model that combines aspects of social, biological and psychological factors that play significant role in human functioning has been proposed (Terzi, 2005). In this respect (Lloyd, 2000; Norwich 2002) argue that the fundamental goal of any model of disability is valuing each disabled individual as a unique human being in which

their rights and our responsibilities should work in partnership to address the full continuum of children's needs.

Cole (2008) suggests models of learning and access to high quality inclusive teaching and learning for children with SEN can only be defined in terms of relationships between what a child can do, and what a teacher must do to enable success in any given environment. He noted the limiting factor for a child with SEN being included effectively rests with the teacher and school to adopt flexible approaches to learning, teaching and assessment (social models) rather than the child being expected to fit into pre-existing structures.

This suggests that barriers to learning, teaching and assessment are created by teachers and schools' lack of flexibility rather than any 'deficit' (medical model) the child may bring to school.

In Sudan the traditional medical model is still dominant however, most of children with SEN are not diagnosed (not labeled or have statements) due to unawareness of the families and the lack of medical care except for those attending segregated institutions.

Nevertheless, when these children go to mainstream schools teachers cannot identify them, as most of them do not receive pre-service or in-service training in this area. This clearly reflects the fact that the inclusion policy has not been put in practice and no resources or support for teachers and schools in order to meet the needs of children with SEN.

2.3.2 Index for Inclusion

The index for inclusion is a set of resources to support schools in the process of inclusive school development. It aims at breaking down the barriers to full inclusion of children with SEN.

It consists of four parts:

Part one: Key concepts to support inclusive approach to school development. These are 'inclusion', 'barriers to learning and participation', 'resources to support learning and

participation, and 'support for diversity'. These provide a language for discussing inclusive educational development.

Part two: review framework details dimensions and sections to structure the approach to the evaluation and development of the school. Inclusion and exclusion are explored along three interconnected dimensions of school improvement:

- Creating inclusive cultures
- Producing inclusive policies
- evolving inclusive practice

Each dimension is divided into two sections to further focus attention on what needs to be done to increase learning and participation in a school

Part three: Review indicators and questions to enable a detailed review of all aspects of a school and help to identify and implement priorities for change. Each section contains a number of indicators. The indicators are statements of aspiration against which existing arrangements can be compared in order to set priorities for development.

Part four: Inclusive process to ensure that the process of review, planning for change and putting plans into practice is itself inclusive. In other words, the Index process can contribute to the development of inclusion. This section involves a detailed collaborative self-review which draws on the experience of everyone connected to the school. It is about finding ways to support school and professional development.

The Index for Inclusion was used as a theoretical framework in this study for the purpose of enriching the discussion of findings, and recommendations for developing inclusive education provision in Sudan.

2.4 Ways of Meeting Special Educational Needs

For many years, there has been a debate about how to provide appropriate education for all children. According to the United Nations Convention on the Right of the Child (1990, Article 2), children are not to "be discriminated against on any grounds, including disability". Article 23 recognises that a mentally or physically disabled child should enjoy "a full and decent life, in

conditions which ensure dignity, promote self-reliance, and facilitate the child's active participation in the community". Children have a right to education "on the basis of equal opportunity" (Article 28). The Convention does not, however, say how education must be provided.

Dyson (1998) sees a basic dilemma in special needs education, namely, how far children's difficulties in learning should be seen as innate within the child, and how far they should be seen as the product of traditional forms of schooling. The answer obviously has important implications for educational provision.

Mittler (2000) has seen attitudes towards, and provision for, students with SEN as reflections of two distinct models or paradigms: the defect or 'within-child' model, and the social model. The defect or within-child model is based on the assumption that learning difficulties are attributable largely to factors within the child. According to this perspective, helping the child necessitates assessment of his/her strengths and weaknesses to make a diagnosis, and the planning of a programme of intervention and support to help the child to fit into the system and benefit from what the school has to offer.

The social model, by contrast, is based on the view that society and its institutions are oppressive, discriminatory and disabling, and that the emphasis should, therefore, be on the removal of obstacles to participation and in changing institutions, regulations and attitudes that lead to exclusion e.g. Campbell and Oliver (1996). Dyson (1998) suggests that the first view led to special schools, remedial education and identification of 'new' disabilities such as dyslexia and attention deficit disorder; the second view lies behind the integration and inclusion movements.

Mittler (2000) argues that the deficit model has been, and continues to be highly influential on policy, practice and attitudes, but that the movement from segregation to inclusion in methods of catering for students perceived as having special needs represents a paradigm shift, from the defect to the social model. At the same time, he warns against polarising these two models as though they were mutually incompatible, and suggests, rather, that there is a constant and complex interaction between them. Clearly, some aspects of the within-child model are relevant,

especially to children who have major visual and hearing disabilities or central nervous system defects.

The social model, however, provides awareness that such disabilities do not necessarily explain all the difficulties these children face, and a stimulus for environmental interventions to remove barriers at a variety of levels, in teaching, parenting, peer relations and the wider community.

In Sudan to date, there is no proper planning or systematic approach towards inclusion. The picture as described by the chairman of Special Education Administration, Ministry of Education is “spontaneous inclusion where disabled children go to the nearest school and enroll according to the Sudanese nature that feels compassionate and sympathetic towards these children (Alhaj, 2008). This clearly reflects the absence of inclusion policy as well as lack of services and resources to help diagnose children special needs and facilitate their inclusion in mainstream education.

From another perspective, different ways of meeting special educational needs have been considered as the result of two distinct theories of knowledge; the reductionist and the constructivist.

According to the reductionist view of education, presented by Poplin and Stone (1992)

- learning proceeds in sequence from part to whole;
- the whole is the sum of the parts;
- things are learned, not constructed;
- learning is regulated by the teacher and;
- errors are to be avoided.

Goldberg (1998) argues that the so-called deficit model of special education reflected reductionist thinking. This model saw special education students as ‘impaired and in need of remediation. Testing was used to pinpoint deficits, which were used to shape individualised educational plans and students were placed in learning environments tailored to their disabilities.

The constructivist paradigm, in contrast, reflects an underlying holistic framework associated with merging systems and integrated settings. In the constructivist view:

- learning takes place in spiral fashion;
- the whole is greater than the sum of its parts;
- learners actively search for and construct new meaning;
- learning is self-regulated and self-preserving;
- errors are critical to learning. (Poplin and Stone, 1992).

Constructivist educators actively encourage learners to pursue their own learning objectives (Noddings, 2004). Such thinking is regarded as more compatible with practices used to educate special needs students in inclusive settings, such as peer-mediated instruction (Udalvari-Solner and Thousands, 1995) and co-operative learning (Sapon-Shevin, 1995).

From these contrasting theoretical perspectives, a number of ways of providing education for children with SEN have been developed. The basic division is between segregated and non-segregated provision; the latter encompasses a broad spectrum of arrangements under which children with SEN receive part or all of their education alongside peers who do not have SEN. These arrangements go by various names, but for the purposes of this study are presented under the general heading of inclusion. In this section, these two types of provision are discussed in turn.

2.4.1 Segregation

All over Europe, in the late eighteenth and early nineteenth centuries, the main form of response to children with SEN was a medical one, characterised by the establishment of educational and residential institutes for 'the deaf', 'the blind' and, later, children with 'mental' and 'physical disabilities'. The first 'special schools' were established in France, Switzerland, Scotland and England between 1760 and 1800 (Potts, 1982). Although the establishment of special schools continued in line with the gradual development of state education, the rationale for special education was often linked to eugenics and the removal of unfit or 'uneducable' children from mainstream provision (O'Hanlon, 1995).

When school attendance became compulsory in many Western countries around the end of the nineteenth century, one consequence was an increased awareness of pupils in mainstream schools who experienced considerable difficulties in learning. In the twentieth century, tests of individual ability (e.g. IQ tests) were developed partly in an attempt to identify such pupils. Subsequently, child psychologists were appointed to identify such children, and special classes and schools were set up to provide education for them (Hornby, 1997).

Early developments were sporadic, resulting from particular local initiatives rather than from legislation. Over time, educational legislation moved from permitting special provision to requiring it. In the UK for example, in the early years of the 20th century, such provision was charged as a duty on LEAs. The predominant means for discharging this duty was to provide special schools, leading to the further development of a separate system (Hegarty et al. 1981).

Separate provision was in accord with the prevailing notion of handicap, dominated by the notion of defect. 'The handicapped' were seen as different in kind from other children and, moreover, likely in consequence of their 'deficiency', to continue to have juvenile status, irrespective of chronological age. From this perspective, it made sense to develop separate educational systems (Hegarty et al., 1981).

Thus, the field of special education in the UK gradually emerged as a response to those children seen as being outside the responsibility of teachers in mainstream schools. It perceived itself, and was perceived by others, as a separate service catering for a small and distinct population of children. The tendency for these children to be isolated from mainstream education was encouraged by the development of separate administrative structures, the existence of specialised teacher training arrangements; and the involvement of voluntary organisations in the provision of special education (Ainscow et al., 2004).

At the extreme, segregated special education services in the US are provided in residential schools, which has the effect of depriving children of opportunities to associate with 'normal' peers. Such schools take care of the children for 24 hours a day, away from home, and often at a

long distance from their communities. Children may visit their homes weekly or at other intervals, depending on their circumstances (Hallahan and Kauffman, 2006).

In Sudan, special day schools also represent another form of segregated special education services. These schools are usually organised for a specific type of special educational need. Such schools contain special materials and equipment to provide for the educational needs of their pupils, but as with residential schools, they raise the issue of social exclusion.

Gearhart et al. (1995) characterise the first 60-70 years of the twentieth century as the 'era of special classes', noting that this was the predominant means by which students with SEN were served. Sometimes an intensive preliminary period of segregated education was seen as a possible precursor to mainstreaming. Students with visual disability, for example, could be educated in special segregated classes for a number of years, in order to learn special skills such as Braille, and subsequently be integrated into ordinary classrooms.

In some countries, segregation is still the predominant form of special education provision. In Germany, for instance, students who are declared eligible for special education must be placed in a special school. In the Netherlands, despite recent policy initiatives to change the emphasis on special school placement, 7.4% of 11-year olds, and 4% of all pupils aged 4-18 attend full-time special schools (Ainscow et al., 2004).

Currently, all countries in Europe, except for Italy, operate a parallel education system of mainstream and special schools, although there is wide divergence of national practice in the use of categorisation and placement of children with SEN (O'Hanlon, 2006). In the Netherlands, for example, the special school system is well resourced and financed, and has a reputation for quality, so parents have little reason to seek alternative provision. Although national policy ostensibly supports mainstreaming of children with SEN at the earliest opportunity, the Netherlands has possibly the highest percentage of children in special schools in Europe. In other countries, notably the Scandinavian countries, parental pressure has resulted in a move away from segregated schooling; the proportion of school-age children in special education in Finland is approximately 2.5%, and in Norway, 0.7% (O'Hanlon, 2006).

Increasingly, however, segregated provision has come to have negative connotations and has been subjected to much criticism. This is particularly so because special units were too often misused as 'dumping grounds' for children with challenging behaviour, vehicles of segregation and, in some areas, ways of dealing with cultural and linguistic difference (Gearheart et al., 1995).

According to Lipsky and Gartner (1989), researchers have not been able to prove that pulling students out of mainstream classrooms for special education services produces significant benefits. Osborne (1999: p.76) goes so far as to say that, despite increases in spending and the growth of the special education bureaucracy, segregated programmes "have simply not worked".

Concerns about the perceived social and academic limitations imposed on children by segregated education settings led to a movement towards more inclusive settings. These are the focus of the rest of this chapter.

In Africa, general education for children with disabilities is provided in segregated institutions run by charities. Karangwa et al., (2005) reported that disability issues are still given little consideration in the national and social development in Rwanda. Disabled people are traditionally classified as cases for non government organizations (NGOs) and other charitable organizations with the government plays a minor role in education of such people. Miles et al (2010) described the emphasis of inclusion of marginalized groups in the country's current education system in a reality on paper not in practice. This the same situation in Sudan referred to in Chapter One. The WHO report on education (2011, p. 207) estimated that only 300 children out of 10000 with visual disability in Rwanda attended primary and secondary schools, with another children in a private secondary school.

It seems that most poor African countries try to acknowledge the rights of people with SEN by signing international accords and design inclusion policies (which remain in theory, not practice) in order to attract more aids and donations which would never be directed to the education and welfare of people with SEN.

In neighbouring Uganda the situation of inclusive schooling provision looks to be the same. Kristensen (2006) reported that despite the government of Uganda's aim to provide a good and quality education for all pupils with SEN, however, some pupils with severe disabilities continue to attend special (segregated) schools. Despite the fact that the country has well structured programme for teacher training in the area of special needs education ((Kristenen et al., (2004)), however, the quality of education and resources available for special schools and teachers is poor. Kristensen (2006) describe admission of pupils with SEN to special schools as improper. This was attributed to lack of assessment of pupils' educational needs and lack of the necessary resources that provide them with the appropriate range of experiences.

Mbaga (2002) depicted a gloomy picture about inclusive education in Tanzania. Currently special needs teachers in higher education are inadequately professionally prepared. This is because special needs education is not given much attention; furthermore, the training in conventional universities is theoretically based. for example the teaching practice is done once in special school in

The increased provision of education for the disabled in the country has been held back by many problems. These are:

- Lack of policy and resources for education of pupils with SEN
- Lack of a valid statistics to depict the different types of SEN and the number of people with SEN
- The negative attitude of society towards the whole question of people with special needs

These problems are still prevailing, though some efforts have been taken to lessen the extent by the government of Tanzania.

In Ethiopia, the growing number of teachers who received in-service training at different institutes led significantly to the expansion of numbers of special classes as well as the number of children with disability attending school (WHO, 2011, p. 222). However the report estimates the number of identified number of disabled children who have access to primary school education is only 6000 child out of 15 million children who attend primary education. This represents .04% of school population, whereas, the World Health Organisation report on Africa

The WHO report (2011, p. 207) also shows that between 24% and 39% of children with disability never attended school in Namibia, Zambia and Zimbabwe. Enrolment has been determined by the type of disability. People with physical disability enroll in better numbers than those with mental, hearing and visual disabilities. In Burkina Faso in 2006 only 10% of visually disabled children attended school, meanwhile, 40% of children with physical disability attended schools

Unavailability of reliable data about the number of disabled children and categories of disabilities results in the lack of planning of efficient and effective education and general welfare for disabled children.

The aforementioned examples clearly indicate how serious the situation is. However, very little effort is made by governments to make the necessary arrangements to meet disabled children's educational needs. If we add to that civil wars and conflicts, famine, poverty, high rates of illiteracy among populations, lack of funding, corruption and absence of laws, principles and legislation on inclusive education, that will give an insight into how the situation of disabled children is neglected and in need of urgent attention.

2.4.2 Inclusion

Before embarking on a discussion of the rationale for inclusion and the ways in which it may be implemented, it would be useful to consider the term 'inclusion' and the reason for its use here.

As noted earlier, there is considerable terminological confusion in the field of SEN research. This confusion is not confined to the terms used to describe children with special needs, but extends also to the discussion of provision arrangements. Until two decades or so ago, the term 'integration' was the one most commonly used to denote arrangements whereby children with SEN receive some or all of their education in mainstream settings. During the 1990s, however, the term 'inclusion' gained currency. Confusion arises because some writers (e.g. Hornby, 1997) use the terms more-or-less interchangeably, while others such as Ainscow (2006) makes a distinction between them, insisting that they reflect different philosophies and, hence, practices.

The term integration, in its original sense, entails a process of making whole, of combining different elements into a unity. In the special education context, it should therefore mean a process whereby a mainstream school and a special group interact to form a new educational whole. Unfortunately, however, the term is often used in a narrower sense in which the idea of synthesis in a process of mutually adaptive interaction is lost; the focus is on the minority group and what needs to be done to or by them for assimilation into the mainstream. In its narrowest usage, integration may be used simply to mean association or the existence of links (Hegarty et al., 1981).

The narrower sense of integration in the UK is implicit in the Warnock report's (DES, 1978) distinction between three kinds or levels of integration: locational (where special units or classes are set up in ordinary schools or where a special school and an ordinary school share the same campus); social, where children attending a special class or unit are joined with other children for meals, recreation and, perhaps, organised out of school activities; and functional, the fullest form of integration, where children with special needs join, part-time or full-time, the regular classes of the school and make a full contribution to the activity of the school.

It is, perhaps, because of the impoverished sense in which the word integration is often used (Hegarty et al., 1981) that there has been a trend in recent years to draw a distinction between the terms integration and inclusion; 'integration' is confined to the narrow senses noted above, while 'inclusion' is used to refer to a mutually adaptive process in which a new educational entity is formed. Mittler (2000: p.2) for example, maintains that;

"Inclusion involves a process of reform and restructuring of the school as a whole, with the aim of ensuring that all pupils can have access to the whole range of social and educational opportunities offered by the school".

Thus, the term 'inclusion' as used by Mittler is actually consistent in meaning with the original, richer meaning of 'integration' and with the Warnock report's (DES, 1978) concept of functional integration.

As will be seen later in this chapter, some advocates of inclusion use the term to refer to a distinct kind of provision arrangement (referred to in this study as 'full' inclusion), whereby all children with special educational needs are educated in mainstream schools. However, according to Ballard (1995), Sebba and Ainscow (1996) and Booth et al. (2000) inclusion is not a state, but a never-ending set of processes. Similarly, the updated Code of Practice (DfES, 2001a) describes inclusion as "a process by which schools, local education authorities and others develop their cultures, policies and practice to include pupils" (p. 2). Thus, the term and the associated debate are relevant to all phases and types of schools. In this section, therefore, inclusion means not only the so-called 'full inclusion', but the whole range of policies and practices by which efforts are made to enable children with SEN to participate alongside and to interact with peers who are not perceived as having SEN.

The following discussion contains five elements: the rationale for inclusion; implementation; implication of inclusion for children and parents and for the character of schools; research evidence on the outcomes of inclusion; and concerns about the recent trend to 'full' inclusion, resulting in calls for 'responsible inclusion'.

2.5 The Rationale for Inclusion

Current global concerns about integration and inclusion can be traced back to the 1960s, when increasing pressure for civil rights combined with evidence that special schools were not achieving the success expected in the light of the resources given to them (Thomas, 1997). Arguments for educating pupils with SEN in mainstream settings are made on humanistic, socio-political, educational and pragmatic grounds.

From a humanistic perspective, it is argued that discriminatory practices in education and elsewhere serve to perpetuate anti-humanistic values and behaviours. For example, if a child is made to feel worthless, he or she may need to assert the worthlessness of others. If children are taught to fear differences, their feelings become barriers that prevent the use of new ideas and accurate information, leading to stereotyping, scapegoating and exclusion (Epstein, 1984).

It is a humanitarian belief that every disabled person should have the opportunity to have an education and living environment that are as close as possible to what is considered to be 'normal' (Hallahan and Kauffman, 2006). This, it is argued, requires both physical (locational) and social integration.

Epstein (1984) asserts the importance of autonomy and self-actualisation to mental health. She argues that segregation engenders feelings of powerlessness and worthlessness. The segregated child becomes more dependent yet, paradoxically, more socially isolated, unable to attain the equal status necessary for mentally healthy interaction. From the perspective of humanistic psychology, she asserts the need to respect value and accept oneself, and the right to command the same from others, and argues that such values are fostered by inclusive settings where people are truly diverse and become aware of each others' unique needs, as well as their common needs and aspirations.

The Salamanca Statement (UNESCO, 1994) advocated inclusion on the grounds that inclusion and participation are essential to human dignity and to the enjoyment and exercise of human rights. Human differences, it is asserted, are normal. Regular schools with an inclusive orientation are said to be the most effective means of combating discriminatory attitudes, creating welcoming communities, building an inclusive society and achieving education for all.

Inclusion is said to foster a sense of belonging, where classroom instruction meets the needs of all students (Osborne, 1999). Pearpoint and Forest (1992) describe the important basic values of the inclusive school as the ABCs (Acceptance, Belonging and Community), and argue that an inclusive school focuses on how to support the special gifts and needs of every student in the school community, so that they feel welcomed and secure, and can become successful. In this section, different philosophical, social and educational arguments that advocate inclusion in favour of segregation are discussed to establish a grounded rationale for inclusion.

From a socio-political perspective, the argument against segregation and in favour of inclusion is related to issues of power and control. Epstein (1984) draws attention to a growing realisation that a significant percentage of 'handicaps' is externally caused by discriminatory behaviour,

rather than intrinsic to the physical or mental disability. This has stimulated a movement by disabled people and their advocates calling for the removal of discrimination; and demanding accountability for the educational and other services provided for people with special needs. Some educationists have suggested that segregation perpetuates and even creates handicap by denying children the opportunity to observe and take part in the behaviours normal to their society. For example, Hegarty et al., (1981) quote a headteacher's view that:

"it is a negative situation in living terms. . . One slowly becomes abnormal... out of phase with community and behaviour patterns." (Hegarty et al., 1981: p.78).

Other socio-political arguments reflect specific concerns and conditions in individual societies. For example, a criticism of special classes which emerged in the USA was that they promoted racial segregation, since ethnic minorities were often substantially, over-represented in such classes (Hornby, Atkinson and Howard, 1997)

One of the concerns of those calling for more radical change (e.g. Ainscow, 2006; Ballard, 1995; Slee, 1996) is the way pupils come to be designated as having special needs, which they see as a social process that needs to be continually challenged. Advocates of full inclusion argue that, since society artificially constructs the disability labels for children, a large part of the problem would be removed by removing these labels (Lerner, 1997). They also claim that the continued use of the so-called 'medical model' of assessment, by focusing solely on child deficits, distracts attention from wider problems related to the way schools are organised and teaching is provided. Skrtic (1991) goes so far as to claim that pupils with special needs are artefacts of the traditional curriculum. Such writers argue that the way forward is to reform schools and improve pedagogy in such a way that individual differences are viewed positively as opportunities for enriching learning.

Although not all educationists would agree with the extreme stance taken by Skrtic (1991), many have expressed concerns about segregation, and advocated inclusion, on the grounds of educational philosophy. Epstein (1984), for example, argues that teaching has become stuck in an ancient liberal arts pattern that conflicts with the humanist goals of education: to foster the mental, physical and emotional health of every individual. Too many children, she claims, are

labelled hyperactive, maladjusted, or having behaviour problems, and moved into special classes, when the problems are rooted in inappropriate teaching methods and an excessive preoccupation with academic content at the expense of problem-solving and productive interaction. From this perspective, it is argued, not only that children with SEN could be educated alongside their peers who do not have SEN, if teaching objectives and methods were modified, but also that the kind of teaching which is needed for children with SEN is actually better for all children.

"It is not only special children who need to think and to be; all young people need opportunities for optimum development as human beings, instead of occasions for functioning like limited and defective computer banks." (Epstein, 1984: p.186)

Ainscow et al., (2004) argue that developing new teaching responses that can stimulate and support the participation of all class members has the potential to bring about improvements that can enhance the learning of all pupils whilst at the same time reaching out to those who have been marginalised.

Gearheart et al., (1995) suggests that inclusion is beneficial for teachers, providing them with challenges that help them to grow, personally and professionally. They report that, often, teachers who are initially apprehensive at the prospect of a student with SEN being placed in their class find the experience an exciting and rewarding one which they are keen to repeat. Very often, the methods used for teaching students with SEN may be used with other students, and the challenge of working with students of different physical and/or mental ability may stimulate them to learn to serve as facilitators to provide each student with opportunities to reach his/her fullest potential, rather than simply teaching all students (Gearheart et al., 1995).

At a practical level, calls for a move away from segregation have also been prompted by, at best, equivocal, and at worst, negative, findings about the efficacy of special classes and curricula (Hornby et al., 1997). For example, in one of the local authorities reviewed by Hegarty et al., (1981), the impetus for integration of severely and profoundly deaf pupils, came from an academic involved in the education of such pupils, whose surveys demonstrated the poor

attainments and limited social interactions of pupils attending special units for partially hearing 'impaired' pupils.

Inclusion has also been advocated from a pragmatic standpoint. The Salamanca Statement (UNESCO, 1994), claims that inclusive schools constitute a more efficient and cost-effective way of providing education than the maintenance of parallel systems. Ainscow et al., (2004) extends this pragmatism to their views on the policies and practices to be adopted within the individual school. In Ainscow's view, individualised approaches, whereby practices imported from earlier (segregated) experience in educational provision are transferred to integrated settings, are not feasible and do not fit with the ways in which mainstream teachers plan and carry out their work. Practical considerations such as class size and teaching load make it inevitable that the planning frame has to be the whole class.

As can be seen from the foregoing discussion, the move to a more inclusive orientation to the education of children with SEN has been demanded and justified on a number of philosophical and practical grounds. Although general factors such as the movement to desegregate minority groups can be very pervasive, the particular reasons why a decision is taken to develop or expand integrated provision at a particular time and place vary, as Hegarty et al., (1981) found. Their study showed that one of the main reasons for opting to educate pupils with SEN within the mainstream of education was an attempt to overcome existing inadequacies in the quantity or quality of provision. Whatever reasons weigh most heavily at a particular time and place, the provision of some or all of the education of pupils with SEN in non-segregated settings is now well established in many parts of the world.

Ways in which inclusion has been implemented will now be considered in order to establish the necessary measurements of implementation that can lead to a successful inclusion.

2.6 Implementation of Inclusion

Inclusion does not refer to a single form of provision. The challenge of educating pupils with SEN in ordinary schools can be met in many different ways. Various writers have attempted to describe and categorise these possibilities.

One commonly cited model is that of Deno (1970). Deno's cascade model was one of the first to embody the idea that organisational structure should be based on learning variables, rather than clinical labels. Pupils are placed in a particular environment because of an identified need for, for example, extra teaching or a highly structured environment, not simply because they are visually 'impaired', or have learning difficulties.

Similar attempts to categorise provision for children with SEN in terms of educational arrangements instead of categories of handicap have been made by, *inter alia*, Cope and Anderson (1977), Hegarty et al. (1981) and Gearheart et al. (1995). The precise number of categories, and their content, differ from one model to another, reflecting the special educational provision available in the countries concerned at the time of writing. What those models have in common, however, is that they tend to be structured in terms of degree of separation from the mainstream, and to imply a continuum from total segregation to the absence of segregation.

As an example of such a range of arrangements, in the USA, the New Jersey Administrative Code (NJAC) envisages a continuum of services, whereby students may receive some or all of their individualised education programme in a range of placements, ranging from less restrictive to more restrictive: general classroom, general classroom with resource room; general classroom with special class (self-contained); full-time special class; special day school; residential treatment facility and limited educational placements other than school (home, hospital, detention centre (NJAC, 1998, Art. 4.2).

It should be pointed out, however, that the notion of a 'continuum' is not really accurate. The ordering of categories refers to a general trend, but in practice, the boundaries between individual categories may be blurred. Moreover, it is not easy to determine how some categories should be arranged in relation to each other. For example, referring to Cope and Anderson's model, a pupil in a special class full-time (level 5) may in practice be more segregated and receive more specialist resources than one who attends a special school with formal links, such as a shared campus, to an ordinary school.

Thus, it is not always easy to tell from the 'label' of a given arrangement, how inclusive it is in practice. Schnorr (1990) cited the case of a student with SEN who was mainstreamed part-time into a first-grade class. He was regarded by his peers as an outsider because of the limited time and activities he shared with them. In particular, the social membership of the student was not established because he was not in the mainstream classroom during the less structured social or free times of the day.

Another weakness of formal models is that, although they may offer good discrimination between levels in terms of the degree of specialist involvement, they tend to overlook ancillary involvement. Thus, the idea of a 'continuum' should be viewed with some caution. What is important for the purposes of this study is to recognise the complex and multifarious nature of provision.

Public policy in both the USA and the UK supports the principle of including as many children with SEN as possible in mainstream schools, but also requires education authorities to maintain a continuum of special education provision (Hornby, 1999).

In the UK, children with special needs in general come under the responsibility of the Local Education Authority (LEA) and are entitled to receive specific educational provisions (Hegarty, 1990). Many children receive their education in special schools, while others attend special classes in ordinary schools or, more commonly, undergo mainstream education with certain modifications including the use of support services (Pijl and Meijer, 1991). Current practice is governed by the 1981 and 1996 Education Acts which embody the philosophy of the Warnock Report, guidance on the National Curriculum (DES 1989) which suggests that children with SEN should follow this curriculum to the maximum extent possible, and the Code of Practice for SEN (DfES, 2001 a), which sets out the responsibilities of all those involved in the education of children with SEN, in schools, in the governing body and in the LEA. The new Code of Practice, compared with its predecessor (DfE, 1994), incorporates a stronger right for children with SEN to be educated at a mainstream school. This provision is a reflection of the Special Educational Needs and Disability Act 2001, which has amended the Education Act 1996 and transformed the statutory framework for inclusion into a positive endorsement of inclusion (DfES, 2001b).

According to the new code of practice, from September 2002, LEAs must not treat pupils less favourably, without justification, for a reason related to their disability; must take "reasonable steps" to ensure that disabled pupils are not disadvantaged, and must plan strategically for and make progress in improving the physical environment of schools for disabled children, increase their participation in the curriculum, and improve ways of providing information to disabled pupils. As a consequence, a child who has a statement of special educational needs must be included in a mainstream school, unless this is contrary to the wishes of the child's parents, or would be incompatible with the provision of efficient education for other children. The latter argument is only admissible if there are no reasonable steps the school or LEA can take to prevent such incompatibility, and it is envisaged that it will apply in only a small minority of cases (DfES, 2001b).

In the USA, Public Law 94-142 promises free public education for children with special needs. School districts must provide placements for children with SEN in the least restrictive environment possible, depending on the nature and severity of their disabilities (Berge and Berge, 1988). Great strides have been made in the integration of regular and special education. Integrated provision takes various forms, including self-contained classrooms, itinerant teachers and in-class support services. Recently, the Regular Education Initiative (REI) has sought to give full responsibility to the regular class teacher toward handicapped children integrated in their classes, and to make special education only serve as a resource for regular education (Pijl and Meijer, 1991). In the 1990 Individuals with Disabilities Education Act (IDEA), enacted to update Public Law 94-142, inclusion is not defined, but according to Osborne (1999: p.7) is "generally understood as the placement of a child with a disability with his or her chronological age peers in a general education class".

In Australia and Canada, too, the local community school is often seen as the normal setting for pupils with SEN (Booth and Ainscow, 1998), while in Italy, school integration was established as a right for all children with SEN, as early as 1971. In the early days of integration there were criticisms of irresponsible removal of children from special schools to mainstream schools without adequate support provision (Ferro, 1981) and of a decline in education quality for the sake of radical change (Daunt, 1991). Gradually, however, as class sizes were reduced and

regulated, support teachers and ancillary helpers were provided, and mainstream teachers learned to accept the new pupils and find ways of meeting their educational needs, Italy moved towards a totally supportive single education system, rather than developing separate, parallel systems (O'Hanlon, 2006).

Many governments, organisations and individuals have been influenced by the strong stance of international organisations on inclusive education, particularly the Jomtien Declaration and the Salamanca statement (Booth, Black-Hawkins, Vaughan and Shaw, 2000).

A firm commitment to inclusive education was given in the Salamanca Statement (UNESCO, 1994) in which delegates expressed "the necessity and urgency of providing education for children, youth and adults with special educational needs within the regular education system" (Art. 1). Schools should provide a "child centred pedagogy" capable of meeting special needs. The Statement claims that this approach is more efficient and cost-effective than separate provision, and will break down discrimination (Art. 2). For all these reasons, governments are asked to adopt inclusive education in their law or policy, and to enrol all children in regular schools "unless there are compelling reasons for doing otherwise" (Art. 3). The last clause leaves the door open for some separate education, but it is not clear what would be acceptable as a compelling reason.

Some inclusionists, according to Hornby (1999), have taken the extreme view that SEN result wholly from social factors, and that mainstream schools should be able to adapt to cater for all children with SEN. They see inclusion as a 'right' of all children with SEN (Oliver, 1996). Booth (2000) argues that all learners have a right to an education in their locality and that achieving it requires cultures, policies and practices in schools to be restructured in such a way as to support the learning and participation of the diversity of learners in their community.

However, whatever form or degree of inclusion is operated in a particular locality, the effective education of children with SEN in mainstream schools presents a number of challenges for teachers and administrators. Among these are:

- the existence of inclusion policy will initiate and sustain development for pupils with SEN (Stakes and Hornby, 2000):

With inclusive education, as with other education reform initiatives, administrative leadership determines how or even whether change occurs (Hasazi, Johnson, Liggott and Schaitman, 1994).

- provision of adequate resources:

Catlett (1999) identified resources as a major constraint on inclusion. She noted that in the past it was the practice of many states in the USA to tie their funding to eligibility and placement, e.g. allocating a given sum for each child with autism in a self-contained setting. Recent audits on behalf of the US Department of Education, however, have required that funding formulae be placement neutral. Inclusion, therefore, may necessitate changes in the basis of funding allocations, for example, basing funding on the numbers of children with SEN, rather than diagnosis and/or physical location.

- the development of positive societal attitudes:

The main obstacle to inclusion lies in beliefs and attitudes and not in the absence of readiness in schools and teachers (Mittler, 2000).

- the provision of adequate training for teachers working with pupils with SEN; as Mittler (2000) argues:

"Ensuring that newly qualified teachers have a basic understanding of inclusive teaching and inclusive schools is the best long-term investment that can be made." (Mittler, 2000: p.137)

In this regard, various sources of guidance exist, which provide useful advice on the development of inclusive policies and practice. The UK's Code of Practice (DfE, 1994) has already been mentioned. The Code was not without its critics. It has been suggested (Mittler, 2000) that the very title of the Code of Practice on the Identification and Assessment of Special Educational Needs (DfE, 1994) reflected a within-child model, as did its prescription of individual education plans (IEP). Ainscow et al., (2004) criticises this device as potentially leading to isolation and segregation. Nevertheless, the Code of Practice reflected a social model

in its proposal of major environmental modifications and changes of professional role with the aim of enabling children with SEN to remain in ordinary schools.

Other sources of guidance can be found in the writings of prominent inclusionists, such as Ainscow (2004, 2006) and Booth et al. (2000). Ainscow (2006) notes that schools structured in ways that encourage problem-solving processes tend to be more responsive to pupil diversity. It is also important to have an appropriate balance between collaboration among staff, and autonomy. On the one hand, there needs to be agreed aims and missions, and effective sharing of information and resources. On the other hand, individual teachers need to have sufficient autonomy to make flexible decisions in response to the circumstances and interactions that arise in their classrooms.

These suggestions clearly assume particular competencies on the part of the special needs teacher. This issue will be explored in details in the next chapter.

2.7 Implications of Inclusion for Children and Parents

The impact of inclusive strategies on children and parents will be discussed in this section, and naturally, the main question which researchers address, appears to relate to what overall benefits can be observed. Farrell (2000) documents that a review of the evidence suggests that pupils with SEN do benefit socially from inclusion, but that this may be at the expense of the more traditional 'academic' skills. However, there has been much research pointing out the under-resourcing of the whole SEN strategy, and Farrell naturally points out that this latter result "may be more a reflection of the poor quality of education received in the inclusive setting and is not the fault of the placement itself (p. 157). Certainly, researchers such as Baker et al., (1995) and Lipsky and Gartner (1996) have asserted that some of the problems can be surmounted with more commitment and improvements to the organisation and resourcing of inclusive placements. In respect of the justification for the implementation of a special educational needs philosophy, two broad types of rationale have already been briefly touched upon these being, the entitlement of individual pupils, and the benefits which accrue to them.

Farrell (2000), points out that the benefits of inclusion do not appear to stop with the children identified as having the special needs. The non-SEN pupils find this a development process, and in this respect, the findings of Carpenter (1995), researching the attitudes of mainstream 7-8 year olds to a peer - his own daughter - with Down's syndrome, revealed "significant insights on the part of the children, and an appreciation of the child for her abilities, not her disability" (p.45).

In the same vein, the work of Vizziello et al., (1994) is interesting, since these researchers note that "pupils who had been taught alongside pupils with SEN were more likely to enter helping professions (e.g. social work, teaching, medicine) than those who had not had this experience when they were pupils".

With respect to the implications for parents, some are firmly in favour of their children being educated in mainstream environments, but others are equally convinced that such circumstances are inappropriate for their children, preferring instead to have the option of a segregated, special school where they believe, there are appropriately-trained staff who are better equipped to take care of, and educate their children. In these circumstances there are implications for parents which need to be taken on board, one being that where some choice does exist, it is not beyond the realms of imagination that a parent might take steps to sabotage the efforts of the teaching environment he/she is not in favour of, in an attempt to secure a placement for the child elsewhere. There is no clear cut response from the parents of SEN children, as Farrell (1997) notes when he documents that pressure groups exist for greater moves towards inclusion, and conversely for wanting to maintain a special school sector. It appears that the assessment stage is a particularly emotional and worrying one for parents, who seem to be more distressed at this point than subsequently, when an outcome regarding the type of schooling has actually been made. However, as Farrell (2000) indicates, the whole issue of parental opinion in this connection is under-researched.

2.8 Implications of Inclusion for the Character of Schools

From the above discussion, it is apparent that inclusive schools are intended to be educational environments for all children, within the age range, irrespective of whatever special needs they may present. Mittler (2000) observes that:

"... Inclusion involves a process of reform and restructuring of the school as a whole, with the aim of ensuring that all pupils can have access to the whole range of educational and social opportunities offered by the school. This includes the curriculum on offer, the assessment, recording and reporting of pupils' achievements, the decisions that are taken on the grouping of pupils within schools or classrooms, pedagogy and classroom practice, sport and leisure and recreational opportunities" (p. 2).

Inclusive schools take as their basic philosophy the notion that it is their obligation to adapt to the children, rather than the children fitting in with the school, and as Mittler has pointed out, this need for adaptation is not confined to the classroom and the delivery of the academic subjects, but applies to the entire school experience.

Clearly, this conception of inclusion demands a cultural change, and therefore mainstream schools need to consider the various ways in which they need to adapt. In this respect there are obvious requirements to change their physical environments so that children with particular disabilities can gain access and be comfortable during the school day. Furthermore, curriculum content and teaching methods must be capable of satisfying the needs of all children, rather than assuming that children with special educational needs will, and should, adapt to a learning environment and curriculum which is not constructed to suit them. Additionally, schools must be able to accommodate children not only with physical disabilities, but also those who experience other difficulties (emotional and behavioural) and barriers to learning.

Implications of inclusion for teachers will be discussed in detail in the next chapter as, unquestionably, teachers are crucial components of the system and they must be able and willing to offer their services in such a way that will result in positive outcomes for the pupils.

2.9 Research Evidence on Outcomes of Inclusion

Inclusion has attracted research interest since the 1970s. So-called 'efficacy' research predominates; researchers have examined the relative efficacy of special and ordinary classes, or have compared pupils in special and ordinary schools. In what follows, a few examples are reviewed in chronological order;

Early sociometric studies (Goodman, Gottlieb and Harrison, 1972; Gottlieb and Budoff, 1973; Scranton and Rychman, 1979) suggested that mildly handicapped children were less accepted, more isolated and more actively rejected than non-handicapped peers when educated in mainstream schools. On the other hand, children placed in special classes were reported as having lower self-esteem, lower achievement expectancies and restriction of social role models due to the stigma attached to special class placement.

Empirical support for inclusion was found in the results of various efficacy studies in the USA in the 1970s (Budoff and Gottlieb, 1976; Guerin and Szatlocky, 1974) which have attempted to compare the academic, behavioural and social performance of children with SEN before and after being mainstreamed in ordinary schools. The results of such studies show that children with disabilities can benefit from mainstream educational programmes.

Madden and Slavin (1983), in their review of research evidence on the academic and social outcome of integrated, as compared with segregated, placements, found that many studies were inconclusive in their results or contained methodological weaknesses. They reported, however, that some methodologically adequate studies provided evidence of the efficacy of integration, when mainstream teachers were trained to meet the needs of children with special educational needs and provided individualised education. On the other hand, Danby and Cullen (1988) found no research support for the assumptions that children in integrated settings would do better academically, have better social skills and suffer less stigma than those in segregated placements.

Hegarty et al., (1981) note that many efficacy studies have been marred by biased or inadequate sampling procedures; failure to take account of variations in classroom ethos, the programmes that were followed and the way they were taught; and unsatisfactory or biased measures of academic and social development.

Support for the inclusive education movement has been provided by reported benefits resulting from inclusive practices, by York, Vandercook, Macdonald, Heise-Neff and Caughey, (1992), Peck and Helmstelter (1992) and Giangreco et al. (1992) who all reported significant benefits to non-disabled students, including increased understanding, acceptance of difference, and

flexibility, and improved social and emotional benefit. Children with SEN are said to show improvements in self-concept (Peck and Helmstelter, 1992). Hornby (1992), summarising previous reviews, concluded that there was little evidence that the goals of integration are being met: greater educational achievement, improved social skills, reduced stigma and increased self-esteem do not necessarily result from inclusion.

Hegarty (1993), similarly, in a summary of a major international review by the OECD concluded that the research evidence was not clear, either in support of or against inclusion, largely because of methodological weaknesses.

Zigmond (1995) and Roberts and Mather (1995) suggest that research does not support the effectiveness of full inclusion for students with learning disabilities, and claim that their intervention needs are often neglected.

According to Hocutt (1996), students' academic and social success depends more on the instructional models employed and the classroom environment, than whether placement is in a general or special educational setting. However, the intensive interventions most effective with students with SEN were hard to find in typical classrooms, due to time and resource constraints.

Manset and Semmel (1997) reviewed eight different models of inclusion for students with mild disabilities and concluded that inclusion was effective for some, but not all students. They found no evidence that any full inclusion model is superior to other models of special education provision.

Michael Federico reported favourably on his three-year action research project as a co-teacher in an inclusive class (Federico, Herrold and Venn, 1999). The experiment was reported to have brought beneficial changes in attitudes, academic performance and social relationships. As regards attitude, it was reported that pupils with SEN became less dependent and fearful of failure, and more positive in their attitudes to school. Average grades for the class were close to, or even exceeded, those of other classes in the same year-group, and there were dramatic improvements in the grades of some of the pupils with SEN. Socially, tolerance and mutual

respect were demonstrated in, for example, peer tutoring activities (which included children with disabilities tutoring students without disabilities, in subjects like maths). It must be recognised that this is a qualitative account. Moreover, the project was confined to one particular class where responsibilities for planning, teaching and evaluating were shared between two teachers (one with previous experience in special education) and closely supported by two advisors.

Male (2000) studied inclusion opportunities for pupils with severe and profound and multiple learning difficulties and concluded that these pupils were required to fit into schools' existing arrangements as schools were not physically adapted to meet their needs. That resulted in practical difficulties regarding accessibility to the school premises and lack of facilities required for pupils' personal hygiene. She also noted that pupils with MLD involvement with other pupils took a form of integration, rather than inclusion, with a limited time of contact with other pupils, mainly in social activities and private events. These findings were further confirmed by the ESRC survey (2000) which found that children with SEN in mainstream and special schools spend most of their time accompanied by adults, not with their peers. This, according to the same study will deny them the 'opportunities for age-appropriate behaviour and the exercise of autonomy'.

The guidance document (DfES, 2001b) accompanying the new Code of Practice on special educational needs (DfES, 2001a) offers anecdotal evidence of successful inclusion, but this is confined to individual cases. Its purpose is primarily to illustrate how the school or LEA may fulfill its statutory responsibilities under the Code, and no details of outcomes are given to substantiate the claim that 'the child was successfully included'.

It can be seen that the age of research reviewed goes back to a decade or more in order to reflect a full picture of inclusion over time, however, things may have not moved on significantly ever since. A recent Ofsted report (2011) evaluated how well the legislative framework and arrangements were serving disabled children and young people, and those who have SEN. It concluded that the achievement for these groups was good or outstanding in less than half the SEN providers. It also found that no one particular model e.g. special schools, full inclusion in mainstream setting, or specialist units co-located with mainstream settings worked better the

others. The report findings suggest that successful inclusion is determined by 'where pupils with SEN are taught'.

A recent Ofsted report (2004) assessed the extent to which the vision of inclusion is becoming a reality in schools and local educational authorities (LEAs) since 1999. It found some improvement in practice where most mainstream schools are now committed to meeting the needs of pupils with SEN, however, a minority of these schools admit pupils with complex needs. More than half of schools assessed had no disability access plans and most of the available plans focus only of accommodation of pupils with SEN. The report highlighted inconsistent teaching quality and lessons shortcomings which may lead to insufficient opportunity for pupils with SEN to develop their skills, understanding and independence. It concluded that effective partnership between special schools and mainstream schools on curriculum and teaching is the exception rather than the rule.

The recent green paper on SEN and disability (DfES, 2011) proposes a radical new approach to special educational needs and disability. The paper puts forward a new means of identifying SEN earlier and suggests replacing the current SEN identification levels of School Action and School Action Plus with a new single school-based SEN category. This reflects the confirmation of the government's belief that many children are incorrectly labelled as having special educational needs.

This brief overview suggests that the research evidence for inclusion is inconclusive. Methodological weaknesses, differences of setting, and lack of detailed information on the types of provision and teaching investigated make it difficult to compare studies. It seems that there is some evidence for the academic and social benefits of inclusion, subject to two important provisos: inclusion is not necessarily beneficial for all children; and the quality of inclusion outcomes depends on the availability of the requisite resourcing, teacher training and support.

2.10 Full Inclusion or Responsible Inclusion

As mentioned earlier in this chapter, the concept of inclusion is new to the Sudan educational system. While some educationists, psychologists and policy makers call for full inclusion before

preparing the suitable arrangements for that, conflicting views see the introduction of inclusion without fulfilling the necessary measurement of its implementation will damage the whole educational system (Alhaj, 2008). This section will review the global views on full inclusion in contrast to responsible inclusion in an attempt to reach the most suitable form of implementation that can be recommended for the Sudanese context.

The concept of full inclusion, whereby all children with SEN would be educated in main stream schools has been advocated in the UK (Ainscow, 1997, and Thomas, 1997) and in the USA (Lipsky and Gartner, 1998) since the early 1990's.

While the majority of educationists favour inclusive schools, which include most children with SEN, some have serious reservations about full inclusion whereby all children with SEN would be educated in mainstream classes (Hornby, 2001). Some of the concerns are related to the way rhetoric of inclusion has been accepted, as some writers see it, without adequate critical forethought, or based on confused thinking. In this respect, Kauffman and Hallahan (1995) argue that inclusion in the USA was prompted by civil rights issues and budget considerations, and that inclusion rhetoric has drawn attention away from research evidence and educational outcomes.

Challenges to the rationale for inclusion have also been put forward by Hornby (2001). As indicated earlier, in the discussion of the rationale for inclusion, inclusion is sometimes advocated in human rights terms. As Hornby (2001) notes, there may be a conflict between human rights and moral rights; if, in some cases, educating children in the main stream would deny them a benefit, or even cause harm, it may not be normally right to exercise the human right of inclusion. There is also a question of priorities; the right to be educated in the neighbourhood, alongside peers who do not have SEN, may be outweighed by the right to an appropriate education which meets students' specific needs. According to Hornby (2001), including children with SEN in mainstream schools which in recent years have been under pressure to focus on raising academic achievement, may lead to the goals of education for many of these children being inappropriate. Academic achievement should be secondary to the broader goal of producing well-adjusted, productive individuals.

In countries where the principle of inclusion has been accepted in public policy, such as the UK, it often faces problems in practice. Thomas (1992) found that a particular area of difficulty was with the relationship between support teachers and classroom teachers. Problems can arise because of lack of time for liaison, inadequate interpersonal skills, and the negative attitudes of many class teachers.

Most of the elements, such as the provision of adequate resources, professional development for teachers, a participative approach to policy-making and evaluation of provision and outcomes, are, in fact, consistent with the principles advocated by 'full' inclusionists such as Ainscow and Mittler and, indeed, might be considered pre-requisites of good teaching for all children. Where they differ substantially is in the wide scope their recommendations leave for segregation. In particular, their recommendation regarding teacher choice is open to criticism as its implementation could mean that, in practice, inclusion could not be implemented at all in some schools. Not only may teacher choice not be practically feasible, but it may also be undesirable since it would result in some teachers withdrawing from opportunities of experience which may lead to their misgivings being overcome. It also affects their development of positive attitudes and skills for effective and rewarding inclusive teaching. Another crucial pre-requisite of responsible inclusion is adequate teacher preparation.

Gains (2001) argued the need for inclusion to take place within an ordered and intelligent framework. He criticises the current pressures towards inclusion as politically based and ideologically driven, rather than being based on critical, informed debate and consideration. He rightly expresses concerns about the likely consequences. He, like Vaughan and Schumm (1995) and Hornby (2001) focuses on teacher training; resourcing and inappropriate curricula as challenges that must be met if responsible inclusion is to be achieved.

To sum up this far, it is clear that whatever form of educational provision is in question; the primary consideration must be the benefit to children. As Hornby, Atkinson and Howard (1997) note, any form of education for children with SEN is only defensible if it facilitates their rights to an appropriate education and to integration into society. Placements should be decided on the basis of this principle, in light of the needs of the individual and requirements of the situation. As

the UK Secretary of State for Education and Employment said in November 1998, ‘we owe all children -- whatever their particular needs and circumstances -- the opportunity to develop their full potential, to contribute economically, and to play a full part as citizens. From this government statement, it can readily be seen that the future of advanced and developing nations is considered to depend on the quality of human resources, and this requires paying proper attention to the proper education and inclusion of all children so they can achieve their personal potential.

2.11 Conclusion

Inclusion is best seen as a process, rather than a particular state or type of provision as no single model appears able to ensure quality education for all. It cannot be guaranteed that because a pupil is included within a mainstream school, he/she is guaranteed successful learning.

It can be argued that, full inclusion, when all students, regardless of their needs or the severity of their disability , are taught in a regular classroom full time, all day and every day, could be a barrier to appropriate learning as it assumes that one particular teaching programme could meet all the needs of all children in the classroom. However, a successful integration of children with SEN could be maintained through responsible inclusion where students with SEN have the opportunity to experience a sense of belonging in their community, with the goal of educating them in a school for all or part of the school day, with all the support and services delineated in the teaching programme being available and designated with full consideration of the children’s needs and individual differences.

It is not the intention that inclusive schools should be educational environments for all children, within the age range, irrespective of whatever special needs they may present. Clearly, successful inclusion demands a cultural change, and therefore, mainstream schools need to consider various ways in which they need to adapt. In this respect there are obvious requirements to change their physical environments so that children with particular disabilities can gain access and be comfortable during the school day. Furthermore, curriculum content and teaching methods must be capable of satisfying the needs of all children, rather than assuming that children with SEN will, and should, adapt to a learning environment and curriculum which is not constructed to suit

them. Additionally, schools must be able to accommodate children, not only with physical disabilities, but also those who experience other difficulties (such as emotional and behavioural) and barriers to learning. It is clearly set out in the Ofsted (2000) Report that a substantial obligation is placed upon schools in respect of pupils with SEN, and in order to fulfil that obligation, schools and teachers require not only resourcing, but in many aspects, a re-education as their initial attitudes towards teaching such children in the mainstream need to be harmonised with the philosophy of inclusion. Whatever type or level of inclusion is implemented, at a particular time and place, a key role in the effectiveness of the education in meeting the child's social, emotional and functional needs will be played by the teacher. This implies the need for the relevant attitudes, knowledge and skills to be considered in the pre-service training of all teachers and for continuing professional development opportunities for serving teachers, to enable them to contribute effectively in formulating and implementing inclusive policies and practices.

The success of inclusive education depends on why and how it is planned and implemented. Common themes emerging in the inclusion literature are:

- the need for diverse types of arrangement,
- for adequate resourcing, and
- for an appropriate curriculum designed to serve the ultimate goal of inclusion within society, and at large,
- it is the commitment of all those who are involved in this process that can guarantee the success of inclusive education.

The success of the current trend to include children with SEN in mainstream schools in Sudan suggests a need for a departure from the classic segregated medical model and adoption of a responsible approach using the available scarce human and financial resources. There is a need for necessary arrangements to adapt the current education system, schools and curriculum before pulling out children from special schools. Teachers need proper training and resources, and at large, a comprehensive attitude change on the part of teachers, society and all those who are

concerned with education of children with special needs is needed before implementing inclusion.

As this study has its own limitations in relation to the sample and the geographical area it covered, however, the situation of special education at least at the capital city of Khartoum requires urgent steps towards adoption and implementation of inclusive policy that remove the barriers faced by children with SEN. It is quite obvious that the current dominant medical model of disability has resulted in exclusion and marginalisation of children with SEN. This calls for the need of adoption of alternative model that can remove the barriers and the discrimination caused by the language, labelling and practice under the medical model. As a first step, the social model which proved to be a success in the UK (Shakespeare et al., 2002) can be gradually introduces at least within the school environment and education practitioners. Later on it can be extended to practitioners in other services related to education and then to the whole society.

Chapter Three

Preparing Teachers for Inclusive Classrooms

Preparing Teachers for Inclusive Classrooms

3.1 Introduction

This chapter reviews literature on the linked issues of teachers' attitudes towards teaching students with special educational needs, the competencies needed in teaching such students, and ways of assessing and meeting training needs. It also discusses research evidence on these aspects. The rationale of this review is to help extract the global context of preparing teachers for special education and use that to conceptualise the framework and methodology of this study.

Although the current discussion will review global views on SEN teacher training needs that may be locally relevant and cannot be directly generalised to the Sudanese context of SEN, however, generally recognised guidelines for training needs and competencies can be drawn upon and used in the questionnaire and interview design for the current study.

According to standards for teacher preparation put forward by NCATE (1981) and adopted by the Council for Exceptional Children (1983), teacher education curricula should be based on explicit objectives that reflect the institution's conception of the teacher's role. This implies a need to consider what attitudes, knowledge and skills teachers should have in order to effectively meet the teaching requirements of children with special educational needs in their classes. Negative teacher attitudes towards teaching children with special needs may be related to a lack of confidence in their skills to cope with such pupils, and this may, in turn, be a result of lack of training in the requisite competencies.

The main body of this chapter is divided into four sections. The first reviews studies investigating the attitudes of teachers towards children with special educational needs, particularly in the mainstream classroom. The second examines the competency literature in an attempt to identify the knowledge, skills and attributes required by special needs teachers. There follows a consideration of ways in which teachers' possession of those competencies can be assessed, as a basis for the development of relevant training programmes. Finally, this chapter will discuss the various approaches of training provision for SEN teachers, literature and

research evidence of teachers' attitudes towards inclusion, and in-service training for teachers to meet the needs of children with SEN in inclusive classrooms.

3.2.1 Teacher Attitudes towards Children with Special Educational Needs

Attitudes have been defined as thoughts or ideas that reflect feelings which influence behaviours related to a particular object and are comprised of three major components: cognitive, affective and behavioural (Triandis, 1971). It is important to note that the cross-cultural literature supports the notion that practicing teachers and pre-service teachers differ in their disposition toward inclusion, more specifically in terms of the structure of their education systems.

Stoneman (1993) applied Triandis' theory to attitudes towards children with special needs in inclusive classrooms. The cognitive component relates to knowledge about special needs and the causes of the behaviour of children with special needs; the affective component concerns positive or negative feelings which may motivate people to get involved in working with a child who has special needs or, conversely, may cause a teacher to exclude such a child from typical activities; and the behavioural component pertains to a tendency to behave or respond in a particular way in relation to pupils with special needs.

A key factor in the successful assimilation of students with special educational needs into general education classes is likely to be the attitudes of teachers towards teaching students with such needs (Trent, 1993; Eichinger, Rizzo and Sirotnick, 1991; Beh-Payoh, 1992). Teachers' attitudes towards pupils with special needs are reflected in interactions between the teacher and pupils in the classroom (Leatherman, 1999). The inclusion of all children with special educational needs requires educators to have the beliefs, attitudes and skills to provide an enabling environment (Jacobsen and Sawatsky, 1993).

The measurement of attitudes is "a precarious and limited enterprise" (Hegarty et al., 1981), since basically, it relies on asking people about their likely behaviour and responses in certain situations. Nevertheless, a number of studies have investigated the attitudes of persons within the school community towards students with special educational needs, and to their placement in mainstream education.

Some of these studies have found teachers' attitudes to be ambivalent. For example, Seigel (2000), in a study of general education teachers' attitudes towards special needs students in their classes found that they often experienced feelings of frustration and failure. However, their concern about meeting special needs, in Seigel's view, indicated that teachers would not mind teaching special needs students, if they had the skills, knowledge, competence and support to do so.

A review by Scruggs and Mastropieri (1996) of surveys on teachers' attitudes towards mainstreaming covering a period of almost 40 years, found that although a majority of teachers expressed support for the concept of mainstreaming/inclusion, fewer expressed a willingness to accept "an exceptional child" in their classrooms, and a significant minority thought that students with disabilities could have negative impacts in the classroom, or result in specific classroom problems for them. Overall, it was clear that, irrespective of the dates of the studies reviewed, many teachers had reservations or concerns about teaching students with special needs in regular classes and believed that substantial support was necessary to enable such efforts to succeed.

Other researchers reported distinctly negative attitudes, which constituted barriers to the success of inclusion. Such attitudinal barriers included what McLeskey, Waldron and Pacchiano, (1993) describe as "turf issues, i.e. teachers' concerns about areas of responsibility and perception of visits from special educators as intrusive or threatening.

One school principal in Catlett's (1999) study in Vermont claimed that teachers' attitudes were the "biggest hurdle to overcome" (p. 138). One problem was the attitude of general education teachers that "they had received no training in special education, did not want to be a special educator, therefore, did not want to include students with disabilities in their classrooms" (Catlett, 1999a, p. 138). Lack of confidence was another hurdle; one principal reported that teachers in her school "did not realise they had the skills to be successful" (Ibid., p. 139). Older teachers were less flexible in their attitudes than those who had come out of more recent teacher training programmes.

An assistant school principal interviewed by Catlett (1999) made the interesting point that the failure of university training of general educators to provide any special education background allowed general educators to believe that they were not responsible for special needs students, that "it is someone else's job" (p. 90).

One issue that has been found to be of concern to teachers in relation to special needs students is discipline. In the U.S., Hartwig and Reusch (1994) note the absence of specific guidelines on this point in the regulations for implementing the Individuals with Disabilities Act, while Peterson (1995) reports the resulting uncertainty among teachers regarding proper procedures for disciplining students with special needs. Moreover, Henry (1997) reports anger over a perceived dual code of conduct, whereby special needs students are punished less severely than other students for the same misbehaviours.

Another issue that may be of concern to some teachers, regarding dealing with special educational needs, particularly in relation to emotionally disturbed students, is the possibility of having to deal with student aggression. Of the 178 Florida teachers who responded to a survey on this subject (Ruhl and Hughes, 1985), 84% expressed confidence in their ability to deal with aggressive behaviour from students with emotional difficulties. Their attitudes in this respect, however, were significantly related to training or lack of it. Of those individuals indicating a lack of confidence, 53% had experienced no specific training in methods of coping with aggression; only 14% of those not trained expressed confidence in their ability to deal with aggression.

Teachers' attitudes towards teaching special needs students have been found to vary as a function of demographic and professional factors, including age, gender, education, administrative support, grade level taught, experience and exposure to knowledge about teaching students with special needs (Larrivee, 1979, 1981).

There is evidence in some studies that teachers' attitudes towards students with special educational needs become more favourable over time, as they become more accustomed to dealing with such pupils. Hegarty et al. (1981) found that initial reactions to students with special educational needs were frequently negative. They included hesitance, over-protectiveness, even

fear and hostility. Some teachers admitted feeling uncomfortable in the presence of such students. Generally, these attitudes slowly and gradually gave way to more positive ones as teachers became more used to the presence of students with special needs and had experience of interacting with them. A few saw the presence of these children as a welcome professional challenge, though others had low expectations of students with special needs and did not take them seriously for teaching purposes.

Catlett's (1999) exploration of issues in the inclusion of students with special educational needs in regular classrooms revealed a variety of responses and reactions from teachers. Some felt intimidated by the prospect of special educators coming into their classrooms; others, at least initially, saw the inclusion of students with special needs as a "burden" (p. 134) for which they were not prepared. In time, however, many teachers became "involved and committed" (p. 134), and once a few teachers volunteered to work with the special education teachers, their colleagues began to see that "this could work" (p. 135). Others were determined that there was "nothing to be intimidated about or afraid of". An assistant principal described teachers as having been able to create an understanding and accepting climate in their classrooms.

A common theme found throughout the literature on teacher attitudes is the importance of support and training. Thomas (2009) found an important interaction between class teachers' lack of confidence in teaching children with special educational needs and the quality of support offered by contract special educators. An interesting finding in Thomas' study was that teachers who had doubts about integration found it reassuring to have a colleague who shared their uncertainty; indeed, it served to reduce their opposition. This suggests that teachers find it useful to be able to discuss their worries openly, in a safe climate.

According to Jacobsen and Sawatsky, (1993), teachers' willingness to teach children with special educational needs depends on the availability of consultative support, and on in-service training and education opportunities.

Teacher attitudes towards the teaching of children with disabilities in Canada and the USA were explored by Villa, Thousand, Meyers and Nevin, (1996). The Heterogeneous Education Teacher Survey (HETS) was used to survey 690 respondents (578 general education teachers, 102 special

education teachers and 10 unidentified respondents) in 32 school sites. The HETS explored attitudes to the various assumptions underlying inclusive education (for example, that all children belong in general education classrooms; that the needs of all students can be met in general education classrooms; that general educators and special educators share responsibility; that experience with children who present challenges leads educators to develop new skills; that everyone benefits from heterogeneous education). Overall, both general and special educators responded positively to the HETS items. Support for the items increased as a function of the amount of in-service training, the degree of administrative support, and the extent to which general and special educators collaborated. Respondents who had experience working with various disabilities were in significantly greater agreement with the items than those without experience. Among the implications drawn from the findings, was a need for pre-service and in-service programmes to prepare educators in skills and expectations of collaboration. Further, the authors argued that training content must emphasise theory, practice and experience in team problem-solving and teaching.

Overall, the attitude literature supports the claim of Scruggs and Mastropieri that “teachers need systematic, intensive training, either as part of their certification courses, as intensive and well-planned in-services, or as an ongoing process with consultants”(Scruggs and Mastropieri, 1996, p. 72).

In Africa, Agbenyega, (2007) examined teachers’ concerns and attitude toward inclusive education of students with disabilities in Ghana. The aim of his study was to compare two different teachers’ concerns and attitudes toward inclusive education of students with disabilities in Ghana. The findings were summarised in the following phases:

a- Beliefs about inclusion:

The teachers’ beliefs about inclusion suggest that they do not regard students with disabilities, particularly those with visual and hearing disabilities as belonging in regular classes and would rather prefer them being educated in existing special schools.

Teachers also believed that including students with disabilities limits the amount of teaching work they could do thereby resulting in incompleteness of the syllabuses. They also believed

that if students with disabilities were included in regular classes it would affect the academic performance of their peers without disabilities.

b- Professional issues:

Teachers perceived that their professional knowledge and skills were inadequate to effectively teach students with disabilities in regular schools.

Further, the teachers expressed fear and concern, that because they do not have the required knowledge and expertise to teach students with disabilities who are included in their regular classes; it is contributing to a reduction in the academic success of their schools.

c- Resource issues:

Apart from teachers' negative beliefs about inclusion and concern for their professional competency to practice inclusive education, resource issues also drew much concern for both teacher groups. Resource issues addressed physical aspects such as inaccessible classrooms to students in a wheel chair, overcrowded classrooms; materials such as Braille and large prints. Further, teachers expressed concern about the lack of support from professionals with expertise such as peripatetic teachers or those with expertise in sign language and Braille as well as general special education experts. Finally, teachers clearly resented what they perceived to be imposed policy. Teachers overwhelmingly believe that inclusive education is impossible without addressing their needs for specialist resources. Overall belief is that without sufficient resources and support inclusive education was not possible and doomed.

This is actually consistent with Booth and Ainscow (2002) suggested set of materials to support schools in a process of inclusive school development. In addition to that teachers' attitudes largely affect their acceptance and commitment to implementing inclusion.

Mdikana et al (2007) studied pre-service teachers' attitudes towards inclusion in South Africa. The underlying assumption of their study was that professional attitudes may well act to facilitate or constrain the implementation of inclusive education. They argued that teacher training programmes in South Africa do not prepare pre-service teachers for a teaching and

learning environment that is inclusive and the dearth of provision for SEN in South Africa is reflected in the absence of such modules in the general-teacher-training curriculum.

The results could be summarized as follows:

- Attitudes towards inclusive education:

Pre-service teachers responded positively towards inclusive education with regards to the inclusion of children with special needs. This is actually an encouraging indicator for South Africa as the country has started to gradually implement the practice of inclusive education.

- Requirements for competency:

The majority of teachers expressed a high need for special skills. This result is justifiable, as teaching an inclusive classroom require special skills whereas most teachers in South Africa are not trained to teach inclusive classes as mentioned earlier.

- Requirements for successful inclusion:

A high percentage of pre-service teachers felt that there is a need for special resources. Again, this result is reinforced by the Index for Inclusion (Booth and Ainscow, 2002) set of materials to support inclusion of children with SEN in mainstream schools.

- Attitudes towards learners with Special Needs:

Pre-service teachers responded more positively towards children with SEN. The implication of this result is that teachers should be prepared to meet the needs of the children with SEN provided that they were trained and equipped with the necessary resources and support they need to include such children

Al Zyoudi et al, (2011) investigated the effect of gender and nationality on general beliefs of pre-service teachers towards inclusive education, and the perception of pre-service teachers regarding the availability of resources and teacher preparation by gender and nationality in United Arab Emirates and Jordan.

Given the general cultural context of Jordan and the UAE, it was assumed that gender would affect the general beliefs of pre-service teachers; however, the findings of this study indicated no significant differences based on gender. One reason for the negative attitudes of males and

females could be that pre-service teachers in this study had not been informed that students with special needs would be included in their classrooms and that, as general educators, they do not prefer to be responsible for teaching students with disabilities in the regular classroom.

However, there were significant differences attributable to nationality. Although, both Jordan and UAE societies share many similarities, yet there were significant differences in pre-service teachers' attitudes from the two countries.

Jordanian pre-service teachers had more positive attitudes than their counterparts in UAE. This result was attributed to the fact that UAE as a nation is relatively new, having been established in 1971; hence, much of its effort has been devoted to creating new programs and services in all aspects, particularly in education. These efforts are still in early stages and need more time to prove their effectiveness. In contrast, Jordan has a long history of providing education for all students.

There were also significant differences in general beliefs and the availability of resources. Pre-service teachers in the UAE considered the absence of appropriate materials and equipment as barriers to successful inclusion.

Pre-service teachers in this study were also critical of the services provided for students in general education classrooms. On the other hand, in Jordan, pre-service teachers showed positive attitudes towards inclusion, because they found appropriate resources that facilitated successful inclusion.

Finally, a brief account of the findings from the literature concerning the question of teachers' attitudes towards the inclusion of children with special educational needs (SEN) in mainstream or ordinary schools was reviewed by Baldo, (2006). The focus was on the views of UK teachers; but international perspectives were included as follows:

3.2.2 Teachers' attitudes towards inclusion:

A survey by Norwich (2002) reported that the overall percentage of pupils in special schools has continued to decrease over the years from 1997 to 2001 which indicates positive and continuing trends towards inclusion in English LEAs. However, a recent study by Rustemier and Vaughan (2005) has questioned the commitment of LEAs in England towards inclusion. This concern came as a result of newly published statistics for England which show very little progress in inclusion nationally: one third of LEAs have increased segregation of children with special educational needs over the years 2002 to 2004, with worrying variations in placement across the country.

Although these trends may not be attributed directly to attitudes of teachers towards inclusion, nevertheless, Male and Male (2001) identified five barriers to inclusion as perceived by headteachers', two of which are directly related to teachers' attitudes, while the others are related to the educational setting.

Avramidis and Norwich (2002) maintain that early American studies on 'full inclusion' (e.g., Coates, 1989) provided results which were not supportive of a full placement of children with special needs in ordinary schools. Another American study by Vaughn *et al.*, (1996), which investigated mainstream and special teachers' attitudes towards inclusion by using focus group interviews, reported similar findings. The majority of participants – who were not at the time participating in inclusive programmes – had strong, negative views about inclusion and maintained that policy makers were out of touch with classroom realities. However, studies which included teachers who had active experience of inclusion (e.g. Villa *et al.*, 1996 and LeRoy and Simpson, 1996,) provided findings which favoured the inclusion of children with SEN in mainstream education.

The evidence seems to indicate that teachers' negative attitudes at the beginning of an innovation such as the introduction of inclusive education may change over time as a function of experience and the expertise that develops through the process of implementation.

In the UK context, similar findings have been revealed in a study by Avramidis *et al.*, (2000). The authors surveyed teachers' attitudes towards inclusion of children with SEN in one LEA in

the south-west of England soon after the release of the Green Paper. The sample comprised 81 primary and secondary teachers and showed that participants seemed to be generally positive towards the overall concept of inclusion.

Furthermore, the study showed that professional development has an important role to play in the formation of teachers' positive attitudes towards inclusion. Specifically, teachers with university-based professional development seemed to possess more positive attitudes, and felt more confident in meeting the Individual Education Plan (IEP) requirements of children with SEN.

The study also discussed the role played by both pre-service and post-service training in the development of teachers' support for inclusion. The findings indicated that teachers with substantial training (e.g., university based) were more confident in meeting the needs of students with more significant disabilities than those with no training or with less substantial training (e.g. school-based INSET)

The final UK study to be considered here is carried out by Marshall, (2000). Marshall investigated the attitudes of trainee teachers at the University of Manchester 1998 – 1999 towards children with speech and language difficulties and what type of schooling trainee teachers thought this group of children should receive. A written questionnaire was used which comprised open and closed questions, in addition to a series of focus group interviews. The study revealed that respondents were most in favour of mainstream schooling for a child who stammers (95.2%) and least in favour of it for a child with no speech (12.8%). Other results obtained were for a child with a severe speech sound difficulty (19.6%), a wheelchair user (91.4%), and a child with severe neurofibromatosis (55.3%).

Similar results were obtained when participants were asked about their views regarding having pupils with the same range of disabilities in their own classes, although more were willing to have a child in their own class than in mainstream schools in general. This may be regarded as a positive sign of many trainee teachers' attitudes towards inclusion. However, the study did not show any significant correlation between views on educational placement for children with

different types of disability apart from a weak positive correlation between ‘a child with severe speech sound / pronunciation difficulty’ and ‘a child who does not speak at all’. Also, the study revealed a low positive correlation between responses to educational preference for ‘a child who uses a wheelchair’ and ‘a child who has severe facial neurofibromatosis. None of the other items were significantly correlated with one another.

This suggests participants may have views on education that are not ‘blanket judgements’ regarding children with disabilities in general, but are making judgements which are specific to each type of disability. In this connection, previous research (e.g. Lloyd, 1993) has suggested that some disabilities are seen as more acceptable to the public than others.

Marshall’s (2000) study concludes by suggesting two conditions that need to be met to improve teachers’ abilities to include children with speech and language difficulties. The first of these is a commitment to the philosophy of including all children within mainstream schooling and to define inclusive education in a ‘truly inclusive manner’. The second condition is to enhance the specific knowledge, skills and information related to children with speech and language difficulties in order to increase teachers’ capabilities to fulfil such children’s potential.

Ofsted Survey (2004) found that attitudes and practice of schools’ staff have been slow to shift and that perception of staff is a major barrier to effective inclusion. The study suggested the schools need to evaluate their provision for SEN in order to improve standards of achievement particularly in teaching and curriculum issues.

A recent US study by Hill, 2009 maintained that attitudes are critical to the success or failure of an inclusion programme. It was found that most regular school teachers support the practice of inclusion in regular education classrooms or possess a neutral consensus towards the practice of inclusion as it relates to teaching assignment. For example, grade level, subject area or type of inclusion practice (full or partial). Teachers also tend to agree that they are confident to teach students with special needs when they have adequate training to meet their needs.

Studies carried out in the UK and elsewhere, reviewed above; indicate that although teachers' attitudes towards inclusion may be positive in general, they have differing attitudes with regard to the nature of pupils' disabilities. The general tendency is that teachers are more willing to include pupils with mild disabilities or physical/visual and hearing disabilities than those with more complex needs. A further conclusion is that teachers need assistance in developing the skills required to implement inclusion. The assumption here is that teachers will become more committed to the change, as well as more effective, as their effort and skill level increases. The final conclusion that can be drawn is that while teachers are likely to show initial resistance to any innovative policy, their attitudes may change over time and become more favourable, as they develop the necessary expertise to implement the policy in question.

3.3 Competencies

Proponents of competency-based teacher education view the task of becoming a teacher as performing a series of hierarchical tasks leading to behaviours that have been associated with competent teaching. Schepens et al., (2009) argue that current teacher education programmes have been influenced by a number of pedagogical traditions in past decades, for example academic, technological, personal and critical/social deconstructionist traditions. Competency statements are derived from the role of the practising professional. Such competencies may include cognitive objectives (what the teacher knows) but the emphasis is on performance (what he/she can do) and consequences (the effect on pupils).

Feyerer et al., (2006), stress the need for schools to convey the competences necessary for living in a diverse and multicultural society to all learners. They argue that assessment and instruction are derived from and linked to competencies and suggested the following teacher competencies and stress that the methods used in teacher education must also correspond to these goals:

- Open, project oriented and pupil centred forms of education
- Use and production of new teaching materials, designing and learning environments
- Process oriented support diagnostics and new forms of assessment, feedback and evaluation
- Reflection and adaptation of one's own values, attitudes and action patterns
- Intercultural learning, gender education and education of gifted students

- Interdisciplinary collaboration with other teachers, therapists and institutions within/beyond school and increased parental involvement
- Quality assurance and school development e.g. use of Index of Inclusion (Booth and Ainscow, 2002)
- Public relations together with all school partners to positively influence public opinion

Although student gain would seem to be the ultimate test of the value of specific competencies, it is difficult to demonstrate this relationship because of the time needed for gains to be shown, and the likelihood of student gains being influenced by a complex array of interacting actors, rather than specific discrete competencies. Therefore, professional consensus has usually been adopted as the means of validation. The competency-based approach to teacher training is well established in the US and has more recently become a focus for research and development in the U.K. (Hornby and Mwape, 1991). In the former, competencies have been developed for teachers in relation to several specific categories of special need.

Johnson (1978) surveyed professors of special education and special education administrators regarding their views of the relative importance of 180 teacher competencies, using the Special Education Teacher Competency Checklist (Heir, 1972). Thirty-nine competencies were perceived as being of most importance by administrators, the highest ranked being that pertaining to ability to utilise paraprofessionals, such as teacher aides. Six competencies related to the development of a curriculum based on individual needs and abilities. Other competencies regarded as important related to the utilisation of resources, effective communication, referring problems, theoretical knowledge (e.g. distinctions among emotional disturbance, mental retardation and learning disabilities), adapting and using educational materials, relationships with other professionals, and behaviour modification. Of 35 items considered of 'least importance', 12 related to the administration and interpretation of various kinds of tests. Professors' responses were somewhat different. The competency they ranked highest was personalising classroom instruction, and 12 other competencies perceived as most important related to the selection, design and development of instructional programmes. Other high ranked competencies related to behaviour management, curriculum knowledge, and knowledge of the various categories of

exceptional children. Competencies related to the use of diagnostic tests were regarded as more important by professors of special education than by administrators.

Sass-Lehrer and Wolk (1984) adopted the consensus model as an initial step in defining a set of competencies for teachers of hearing-disable students. Six behavioural domains comprising 110 statements describing the competency needs of elementary-level hearing-disable students were derived from the literature and subjected to the judgement of professionals in teacher training, resulting in a final list of 45 competency statements. Some competencies were specific to hearing disability, others applicable to special needs more generally. The six domains identified by Sass-Lehrer and Wolk were as follows:

- Student assessment (for example, ability to analyse and interpret information from student records).
- Organisation and management of instruction, for example, ability to develop and/or adapt instructional materials, ability to develop an Individualised Education Plan.
- Instructional competencies (e.g. ability to teach students non-verbally through pictures, mime, role play etc.).
- Family education and guidance (e.g. ability to motivate and instruct parents to provide reinforcement of programme goals at home).
- Personal characteristics and traits (e.g. self-confidence, fairness, empathy, humour, enthusiasm, tact and sensitivity, open-mindedness).
- Professional competencies (e.g. ability to interact with social workers, psychologists, counsellors and others, knowledge of ethical responsibilities regarding confidentiality, knowledge of current legislation affecting programmes and services).

Subsequent factor analysis of responses to the competency statements from teachers in inclusive and non-inclusive classes showed that items from the assessment, organisation and instructional competencies sections grouped together into one overall factor, while certain items from the original professional competencies category grouped with the family education items to form a domain labelled "working with, guiding and educating others".

In a later paper, Sass-Lehrer (1986) investigated which competencies educational supervisors believe are most critical for teacher effectiveness in working with hearing disabled students.

The participants in the study were 150 supervisors of teachers of elementary level, hearing disabled students from special schools and public school programmes, from all parts of the United States. Supervisors were asked to rate competencies derived from the literature on a 7-point scale from most to least critical. Confidence interval testing was performed to determine which competencies were most critical to the supervisors.

Regardless of educational setting, supervisors agreed on the importance of 10 competencies. Seven of these were in the broad area of instruction and instructional planning skills, including the ability to assess students' academic abilities, interpret assessment results, develop a viable individualised education plan, and monitor students' performance in a particular placement. Also regarded as most critical was the ability to provide language instruction, the ability to teach small groups of students with different levels of functioning, and the ability to develop and/or adapt instructional materials. Two competencies in the area of interpersonal skills were identified as most critical by the supervisors: the ability to establish good rapport with students and adults, and the ability to motivate and encourage others. The ability to guide students in the development of a positive self-concept was identified as one of the most critical competencies; students who feel good about themselves are more likely to feel they can succeed.

Sass-Lehrer argued that supervisors' perceptions of competencies for effective teaching provide information on the skill areas on which the evaluation and in-service training of teachers should focus. She also recommended efforts to identify specific behavioural indicators of these competencies.

Competencies for teachers of severely and profoundly handicapped students were categorised by Whitten and Westling (1985). They classified teacher competencies into nine broad categories: general knowledge, planning, assessment, curriculum, behaviour management, instruction, physical, other personnel, and parents. Examples of specific competencies from each of these categories are:

- General Knowledge: of child growth and development, relevant legislation and community resources.
- Planning: This includes ability to write an individualised lesson plan, to prepare specific instructional or behavioural objectives and to develop or select instructional materials.
- Assessment: of instrumentation and procedures for screening, diagnosis and assessment and ability to construct a student profile based on observational data and formal and informal assessment.
- Curriculum: ability to develop or use appropriate curriculum (various contents suggested, e.g. language development, self-help skills, social/recreational skills, academic skills, enrichment)
- Behaviour Management: ability to use appropriate behaviour management techniques (some literature supports specific techniques).
- Instruction: demonstrating flexibility in management of learning activities
- Physical: knowledge of basic anatomy and physiology, and ability to assist student having a seizure.

Hammel (1999), with the aim of developing a unit of instruction for music education students, sought to identify competencies needed by music teachers including special learners in their classrooms. She investigated 26 competencies (not necessarily specifically music-related) derived from a study by Williams (1988) of the relationship between teacher competencies and undergraduate preparation. The competencies covered eight broad areas, including general knowledge, legal aspects, assessment and evaluation, curriculum planning, classroom structure, classroom management, methods and materials, and communication skills. Based on surveys of elementary music educators and college teachers of education methods courses, interviews with practising educators, observations of inclusive classrooms and collection of teacher preparation syllabi, Hammel identified 14 of the 26 competencies as necessary for music educators when including special learners.

The competencies acknowledged by Hammel's respondents cover all eight of the categories covered by Williams (1988), the area most frequently acknowledged being assessment and evaluation, which both practising teachers and teacher educators considered of primary

importance. Hammel related this to the emphasis on testing in schools, as a basis for funding and policy decisions, and as a tool for teacher accountability.

Proposed lists of competencies vary enormously in their scope and level of detail. Lerner (2004) divides the competencies needed by teachers of students with special needs into just two categories: a) professional knowledge and skills and b) human relations abilities. The first category encompasses the professional knowledge base that special needs teachers need. It involves technical competencies in assessment and diagnosis, curriculum, instructional practice, management of student behaviour, planning and managing the teaching and learning environment, and evaluation. The second category encompasses the interpersonal skills needed to deal, not only with students, but also with parents and with fellow professionals. These include care, respect, empathy, openness, enthusiasm, willingness to learn from others, and respect for divergent points of view.

In contrast, one of the most extensive developed and detailed lists of competencies appears to be that developed by the Council for Exceptional Children, reproduced by Polloway and Patton (2000). Their list contains 107 specific knowledge and skills statements groups into eight categories:

- Philosophical, Historical and Legal Foundations of Special Education;
- Characteristics of Learners;
- Assessment, Diagnosis and Evaluation;
- Instructional Content and Practice;
- Planning and Managing the Teaching and Learning Environment;
- Managing Student Behaviour and Social Interaction Skills;
- Communication and Collaborative Partnerships and:
- Professionalism and Ethical Practices.

Polloway and Patton (2000) take a somewhat different approach to the subject of teacher competencies. They present a model of effective teaching in which the total instructional process is divided into three major time-related areas: activities, events and concerns that precede teaching; behaviours performed during teaching; and actions taken by teachers subsequent to

teaching. The first of these, labelled "Management Considerations", is concerned with measures taken to create a climate that is conducive to learning, in terms of physical comfort, the establishment of clear, consistent and systematic procedures, promoting desired behaviours, and lesson planning. The second category, "Instructional Practices" concerns the provision of engaging instruction and interactive contact between teacher and pupil. The third, "Evaluative and Collaborative Activities", involves monitoring, assessment, feedback, and relations with parents and other professionals. The three dimensions are obviously interrelated. The outcome of evaluation, for example, may lead to changes in management or instructional activities.

As the above examples demonstrate, there is a well-established tradition of competency research in the U.S.A. While it is a newer field in the U.K., a few studies have been carried out in that context.

Based on the literature, Hornby, Wickham and Zielinski (1991) drew up, a set of 46 generic competencies for teachers of special educational needs, which they sought to validate through feedback from experienced professionals in the field of special education. The competencies covered seven content areas:

- orientation and attitude;
- assessment and identification;
- goal setting and objectives;
- teaching and learner facilitation;
- planning and implementation;
- evaluation and recording;
- counselling and consultation.

The surveyed professionals rated each of the 46 competencies on a scale from 1 (not important) to 5 (very important). All but four of the competencies received average ratings of at least 4.0, and none had a rating below 3, suggesting wide agreement amongst experienced professionals in special education, on the importance of these competencies. The following examples give a flavour of the kinds of competencies included within each of the seven domains.

Whereas the above studies have sought to develop or validate lists of competencies across a broad spectrum of teaching activities, others have focused on a specific area. Ruhl and Hughes (1985), for example, noted that teachers in settings serving emotionally handicapped students are frequently confronted with verbal and/or physical aggression directed to themselves or to other students. Commenting that it is teachers' responsibility to provide psychological and personal safety, they noted the need for teachers to have competence in appropriate preventive and intervening strategies.

Another study with competency implications is that of Riffle (1985) who examined the practice of regular classroom teachers in referring pupils suspected of having special educational needs. Riffle noted that, as primary referring agents, regular classroom teachers have a significant impact on the selection of the student population to receive special education services. Her survey of the referral practices of 186 teachers in 31 elementary schools revealed that 89% had referred students in the three-year period investigated, but only 63% of referrals resulted in the provision of special services, supporting Riffle's assumption that teachers often referred students either with limited knowledge of eligibility requirements or without exhausting all possibilities for interviewing and correcting student difficulties within the regular classroom setting. Teachers' referral practices were significantly related to their experience of in-service training. On the basis of her findings, Riffle called for pre- and in-service teacher training to transmit information concerning efficient intervention strategies, as well as the skill of making justified and necessary referrals to teachers.

Sebba and Ainscow (1996), reporting on a UNESCO project in which educators are led, during a series of workshop sessions, to consider life in the classroom through the eyes of learners and to relate their experiences to their own practice in school, identified three factors or competencies as important to the creation of classrooms responsive to the needs of all learners:

- teachers need to be able to plan for the class as a whole, with an emphasis on making all activities inclusive;
- they need to be able to recognise and use effectively natural resources (including the experience of pupils themselves) that can help to support learning; and

- they need to be able to improvise, to modify plans and activities in response to the reactions of individuals within the class.

Darling-Hammond (2006) stresses that pre-service teacher training is vital the continued development and success of inclusive educational practices and provided a summary of the common features needed for teacher education (p.4):

- A common clear vision of good teaching permeates all course work and clinical work
- Well defined standards of practice and performance are used to guide and evaluate coursework and clinical work
- Curriculum is grounded in knowledge of child and adolescent development, learning, social context and subject matter pedagogy, taught in the context of practice
- Extended clinical experience are carefully developed to support the ideas and practices presented simultaneously, closely inter-woven work
- Explicit strategies that help students to confront their own beliefs and assumptions about learning; and learn about the experiences of other different people
- Strong relationships, common knowledge, and shared beliefs link school and other teacher education institutes
- Case study models, methods, teacher research, performance assessments and portfolio evaluation apply learning to real to real problems of practice

In the U.K., according to the National Standards, SENCOs are expected to have knowledge and understanding of the required skills in the broad areas of leadership, decision-making, communication, and self-management (both prioritising and managing time, and taking responsibility for their own professional development).

Clearly, these role expectations require classroom teachers to have a certain level of skill in assessment and diagnosis, competencies in planning, organising and delivering instruction (including the ability to vary or adapt materials and methods), the ability to communicate and work collaboratively with others, and an understanding of how and when referral may be necessary. More specific and extensive competencies are, however, required of those teachers designated as special educational needs co-ordinators. Explicit guidance on these can be found in

the national standards for Special Educational Needs co-ordinators, which set out the professional knowledge, skills and attributes necessary to carry out effectively the key tasks of the role concerned. The idea is to set out clear expectations for teachers; help teachers plan and monitor their professional development; provide a basis for the professional recognition of teacher attainments; and help providers of professional development to provide relevant training which meets teachers' needs and contributes to improving the quality of education for pupils (Teacher Training Agency, 1998).

It is obvious that the subject of competencies for teachers dealing with students who have special educational needs is an extensive and complex one. Numerous sources of competency proposals exist, with varying levels of detail. Domain classifications vary in number from two to nine.

Researchers differ in the names given to some categories, and on their decisions as to the classification of individual competency items. Despite those differences, there are certain competency domains on which a broad level of agreement can be found. Teachers who are expected to teach children with special educational needs in mainstream classes need relevant theoretical knowledge, knowledge of applicable legislation, and an understanding of professional ethics. They need skills in assessment, diagnosis and evaluation; planning, organisation and management of instruction; instructional competencies; curriculum development and adaptation, behaviour management, and the use of resources (including material, human and experiential resources). They should have interpersonal skills related to working with students, parents/families and other professionals; they should display positive yet realistic attitudes to their students, and they should have certain personal characteristics, such as enthusiasm, empathy and flexibility. Awareness of these competency domains, and formulation of specific competency statements within each, can provide a basis for the identification of training needs and the development of training courses.

3.4 Training Needs Assessment

In this section, some old studies will be reviewed as well as recent ones. The rationale for that is to highlight the notion that perceived training need may change as a result of the inclusion agenda in a particular context.

The importance of carrying out a proper assessment of teachers' training needs is demonstrated by the qualitative findings of Catlett (1999) in the U.S.A. In her interviews with school administrators about issues and experiences resulting from efforts to implement legislation on provision of the "least restrictive environment" for children with special needs, an issue that was frequently raised was teacher training. A special education director reported that teachers continually asked for more training but, when asked to be more specific, did not know what they needed. A school principal made the same point. Moreover, she indicated that she was afraid to accept the responsibility for training, because she did not know what was necessary. Similar points were raised by administrators in more than one state. In the absence of proper training needs assessments, teachers were often relying on ad hoc exchange of information and experience with colleagues.

A starting point for training needs assessment would be a list of competencies such as those reviewed in Section 3.3, which described the knowledge, skills and personal attributes considered to be necessary for effectiveness in meeting special educational needs. The difficulty is to identify to what extent prospective or serving teachers already possess these attributes, and so identify the areas that training needs to address.

One way of identifying the training needs posed by integration would be to analyse systematically the tasks carried out by the different people involved, relate them to the training they received, and note where further training specific to integration is required.

An alternative to this formal approach is to ask participants to describe their perceived training needs, though a limitation of this approach is that the untrained may lack awareness of what they should know and be able to do (Hegarty et al., 1981).

Hegarty et al. used open-ended interview questions to gain some indications of teachers' perceived training needs, but an approach more commonly found in the literature is the use of a questionnaire survey, in which respondents rate their perceived ability and/or training need in relation to a number of competency statements. An example of this type of survey is that of Howell (1999), who surveyed Industrial Technology Education teachers' perceptions of their

knowledge, skills and attitudes related to working with mainstreamed special needs students by means of a questionnaire survey. The 50-item instrument consisted of four sections. Section I (items 1-6) generated data about formal training teachers had had to work with special populations. Section II (items 7-29) contained items concerning teachers' general skills and attitudes in relation to teaching special needs students, for example:

7. I feel that I can adapt my teaching methods to meet the learning styles of special needs students.

25. I am comfortable in working with special needs students in my class.

Items were answered on a 5-point Likert scale where 1 = disagree and 5 = agree. The third section of Howell's instrument collected information on future education opportunities teachers might want to improve their skills for teaching special needs students, asking them to rate the desirability of various training options on a scale of 1-5, from Not Acceptable to Highly Acceptable. The final section collected demographic data about the respondents. A space left at the end of each of the first three sections, for additional comment, gave the survey a qualitative dimension. In the case of Howell's survey, teachers' qualitative comments raised such issues as time and funding constraints, and the difficulties of arranging cover for classes if the regular teacher attended in-service training during teaching hours.

A more complex, multi-dimensional approach to training needs assessment was taken by Hesse (1977) in the U.S.A. She asked 17 teachers, through a questionnaire, to evaluate their own competencies and indicate within which areas they felt the need for in-service training. These self-ratings were complemented by data from classroom observations and written exercises. The questionnaire contained 20 items, focusing on the areas of curriculum management and behaviour/classroom management. Teachers were asked to assume that a child with a mild to moderate learning difficulty or physical disability was to be placed in their class, and to rate their need for training in each of the stated competencies on a 6-point Likert-type scale, using the categories: very extensive, extensive, somewhat extensive, little, very little, not needed. The direct observational instrument was a timed coding system which focused on teacher-student interactions. Five observations, each lasting 30 minutes, were conducted for each teacher, during their regularly scheduled reading period. In addition, teachers were asked to complete two written exercises. The first asked teachers to read a profile of a child with a reading deficit and

answer questions about how they would manage the curriculum to address the child's needs. The second exercise measured teachers' knowledge of support services and their ability to interpret materials in student records.

Responses to the written exercises were evaluated by experts in the relevant areas, using the categories: inadequate, almost adequate, adequate, and excellent. Teachers perceived that they needed fairly extensive in-service training in both behaviour and curriculum management. Their perceptions on the former were not borne out by the observations, which showed them to be highly skilled in the use of behaviour management techniques, but their perceptions regarding the latter were supported by the written exercises, where their answers were rated as less than adequate. It was concluded that most teachers need in-service training in the areas of curriculum management, lesson planning and the use of support services.

The same assessment procedure and instruments were subsequently used by Smith (1982) with a slightly larger sample of teachers ($n = 36$), with very similar results.

In Nigeria, Igbalajobi (1982) also used a multi-dimensional approach. Self-ratings of training needs were derived from 80 teachers using a questionnaire similar to that used by Hesse (1977) and Smith (1982), but with a 5-point response scale: extensive, moderate, little, very little, not needed. A randomly selected sample of the questionnaire respondents ($n = 20$) were later interviewed individually using a schedule of 14 semi-structured, open ended questions, for example:

- What are your problems in classroom management of mildly handicapped children?
- What do you think are the causes of your problems?
- How much training will you need to solve those problems?

The 20 teachers interviewed were also observed in the classroom, and completed four written exercises assessing their knowledge and skills in the areas of curriculum management, academic assessment and behaviour management. The results suggested a significant difference between expressed and observed needs of teachers in all the areas. They tended to ask for things they did not need and failed to ask for what they actually needed.

Clearly, all the approaches to training needs assessment found in the literature have both advantages and disadvantages (see Table 3.1) The most commonly used method, the self-rating questionnaire, is easy to administer and quick for respondents to answer. Several validated lists of competency items exist as a basis for such instruments. However, the questionnaire measures perceptions of needs, rather than actual knowledge or skills. Moreover, since most existing questionnaires and competency lists were developed in the U.S.A., some items may not be applicable in other educational systems.

Unstructured and semi-structured interviews have the advantage of flexibility; they do not constrain teachers' answers to particular themes or formats, so they may be able to obtain rich data about teachers' actual concerns and experiences. However, teachers may not know what they need. Moreover, it may be difficult to translate the qualitative information from interviews into clear statements of training needs.

Observations constitute a way of obtaining objective data on teachers' actual performance. They are, however, time consuming and trained assistants may be needed to cover a large sample. Moreover, some teachers, especially those with less experience and/or confidence, may perceive the presence of an observer in their classes as threatening. There are also validity questions raised by the fact that teachers and pupils may behave differently from usual, when they know they are being observed.

The other method employed in these studies, written exercises, again provides an objective measure of knowledge, but is very time consuming (each of the exercises used by Hesse, 1977 and Smith, 1982, took 2-3 hours to complete), is very demanding of teachers and depends on their being highly motivated to participate, and needs expert assessment.

Thus, no method of assessing training needs is ideal; training planners must make a choice of methods based on the information desired, the size of the area and target population, cultural factors and resource constraints. Table 3.1 compares different methods used to assess teachers' training needs for special Education in relation to the strengths and weakness of each method.

Table 3.1
Comparison of Training Needs Assessment Methods

Method	Advantages	Disadvantages
Unstructured interview (e.g. Hegarty, et al., 1981)	<ul style="list-style-type: none"> • Flexible • Non constraint on response 	Teachers may not know what they need <u>May be difficult to analyse</u>
Semi-structured interview (e.g. Igbalajobi, 1982)	<ul style="list-style-type: none"> • Flexible • Non constraint on response 	Teachers may not know what they need <u>May be difficult to analyse</u>
Self-rating questionnaire (e.g. Hesse, 1977; Smith, 1982; Howell, 1999)	<ul style="list-style-type: none"> • Competency bases • Easy to administer • Comparable data • <u>Non-threatening</u> 	Measures perceptions only Items may be culture/systems specific
Observation (e.g. Hesse, 1977; Smith, 1982; Igbalajobi, 1982)	Objective data on actual performance	Time consuming Need for trained assistants Possible Hawthorne effect <u>May be seen as threatening</u>
Written exercises (e.g. Hesse, 1966; Smith, 1982; Igbalajobi, 1982)	Objective measure of knowledge Comparable data	Time consuming Heavy demand on respondents <u>Need for expert assessment</u>

As the credibility of the findings is enhanced by comparing data obtained from different sources, different investigators and different methods of data collection, it is desirable to include combinations of methods to collect data as all methods have their own limitations, validity threats and distortions (Glynis et al, 2003). In this study, different methods of data collection

were used to assess training needs of teachers for special education as will be explained in methodology (Chapter Five).

3.5 Training Teachers for Special Education

As Mittler (1992) points out, the successful education of children with special educational needs in ordinary schools depends on all teachers having a basic core of relevant information, knowledge and skills, as well as positive attitudes to the education of such children in ordinary schools. The earlier sections of this chapter have considered what the required information, knowledge, skills and attitudes might be, and how teachers' needs for training in them may be identified. This section considers ways in which training relevant to teaching students with special educational needs, especially in integrated/inclusive settings, may be provided, drawing on examples from the US and UK.

In the United States, following the coming into force of Public Law 94-142 (1975), a requirement was introduced that State and Local Education Agencies (SEAs, LEAs) specify how they would prepare teachers to meet their responsibilities under this law within a Comprehensive System of Personnel development (CSPD). Although the regulations are vague with regard to pre-service programmes, more explicit guidance is provided for in-service programmes. Regulations related to the planning and implementation of in-service training are based on the key concepts of relevance, job relatedness, participation, collaboration, needs-based planning, school based implementation, programme quality and parity in decision-making (Cline, 1984). Evidence of considerable variation in types of training is provided by Cline, who examined 99 in-service projects by SEAs, LEAs, Institutions of Higher Education, Intermediate Education Units and Non-profit Organisations.

A total of 25 different strategies were identified, falling within five basic modes: the job-embedded mode (e.g. consultancy, team-teaching); the job-related mode (e.g. site visits, training packages); the credential-oriented mode (e.g. summer institutes); professional organisation-related (conventions, conferences, journals); and self-directed (independent study, travel). Most of the SEA and LEA projects were based on needs assessment, but almost half the other projects had omitted this step. It was noticeable that as projects became increasingly collaborative, they

also became more field-based (i.e. taking place at or near the participant's place of work). Subject matter was similar across projects, but they varied with regard to depth. Some provided training at the awareness or knowledge level only, while others provided opportunities for skill application.

The potential of in-service education is not always realised, because the necessary attributes and conditions are not incorporated into their design. Truesdell (1985) abstracted from the literature 10 characteristics of quality in-service education, as follows:

- Integration, i.e. placement of programmes within the overall organisational structure and within a plan that co-ordinates training with the norms and goals of the system.
- Collaboration of participants and interested parties in the planning and conduct of programmes.
- Needs assessment of the information, strategies and skills required by participants.
- Administrative support.
- Accessibility to the target population, in terms of time, location etc.
- Evaluation, including feedback to implementers during training and follow-up of the extent to which new learning is carried over into the school routine.
- Continuity, i.e. the connection of training with participants' past education and experience, and with school programmes.
- Comprehensiveness and complexity, including provision for skill acquisition as well as conveying information.
- Teaching to improve or change instructional programmes and practices.

- Training - changing behaviour through modelling, practice, feedback and coaching.

Truesdell found, however, that in-service training in special education provided by five New York City local districts failed to meet many of the criteria. They did not provide sufficient training to affect teaching quality; an extremely limited amount of time was devoted to training, and only a small number of teachers participated. One district gave though supervisors had identified an extensive list of skills needed by most teachers. In other districts, training was limited to administrators and resource room teachers. Moreover, teachers who attended in-service programmes reported that administrative concerns such as completing individual education programmes (IEPs) and school records received more attention than strategies and skills for teaching. Truesdell noted that a limitation on the participation of teachers in in-service training was the prohibitive cost of hiring substitute staff to cover their duties, when training was held during the school day. One district alleviated this problem to some extent by repeating the training six times, so that one or two teachers from each special education unit could attend each day while their colleagues covered their duties. While this model worked for a one-day course, it may, however, be less feasible for a long-term training commitment. Truesdell's study clearly points to a need for a commitment that classroom teachers shall have access to training, and for ways to be found to involve them in a comprehensive programme of training with feedback and practice, integrated with the goals and structure of the educational system.

In the U.K., following the Warnock report (DES, 1978) Hegarty et al., (1981) based on an investigation of 17 integration programmes in 14 LEAs, described a number of different ways in which in-service training was provided to help teachers perform the new roles required of them. In one local authority, special classes in the schools were closed for one day each term, to allow teachers to attend a course of training at a local college. On these training days, a theme for the day, such as communication and attention skills, was chosen, and speakers invited to present relevant matter. Discussion groups were also held. Participants appreciated this innovative approach, though some thought there was not enough time to meet with others. Another authority ran a series of weekly lunchtime lectures for staff at a comprehensive school and the special school with which it shared a campus.

In another authority, two experienced teachers were seconded for one day a week to run "handicap awareness" courses. Each course ran for five consecutive Fridays: four consisting of lectures and discussions on different aspects of special education and support services available to teachers; the fifth taken up with site visits followed by a discussion session (Hegarty et al., 1981).

Courses of this kind raise a number of issues. One is the matter of location. A course organised within a single school or campus can be customised to its specific needs; on the other hand, the number of staff who benefit from the investment of time and resources is limited.

Another issue is the need for a balance between formal presentation and less structured exchange of ideas with colleagues. There is also a question of timing (day courses, lunchtimes, evenings, etc.); courses need to be held at a time when teachers can conveniently attend them, without excessive interruption to the school's normal teaching routine.

The years since the Warnock report and the research of Hegarty and his colleagues have witnessed significant changes in the training and education of teachers in the UK since 1985, specialist initial teacher training for teachers of children with hearing or visual disabilities, or severe learning difficulties (mental handicap) has been phased out. Courses of this kind can now be taken only as in-service training, after a period of teaching in an ordinary school.

Nevertheless, newly qualified teachers are eligible to take posts in special schools, though they are often advised to gain experience in ordinary schools first (Mittler, 1992).

In the United Kingdom, the initial training of teachers now includes compulsory elements concerned with teaching children with special educational needs. DBS Circular 3/84, as the criteria for accreditation of teacher training institutions and recognition of qualified teachers, required student teachers to be prepared to teach the full range of pupils they are likely to encounter in schools, that they are introduced to ways of identifying and helping children with special needs, and given some knowledge about the specialist help available. These criteria have been built on in several circulars in recent years. In addition to compulsory elements, courses

generally provide a range of optional opportunities to study special needs in greater depth (Mittler, 1992). Focused courses are taught by special needs staff in the institution, sometimes with input from outside specialists. There may also be opportunities to gain direct experience of dealing with special needs through placement in a special school, class, support service or agency. Manchester University for example, requires all student teachers to complete a two-week placement of this kind (Mittler, 1992). Despite those efforts, Hornby (1999) notes that in practice; many teachers in mainstream schools do not feel able or willing to cope with the inclusion of children with SEN.

Booth (2000) outlines a number of different ways in which teachers can be prepared to cope with inclusion. For pre-service teachers, he argues a need for training to be revised so that inclusion is part of the approach to education in all courses, rather than being considered as a separate subject. For serving teachers, cascade models of training can maximise the benefit from limited training resources. Another way of helping mainstream schools towards inclusion, he suggests, is to arrange learning centres in clusters (which could include both special and mainstream institutions) to share knowledge and resources.

3.6 Previous Studies on the Sudan's Context of SEN

As mentioned in the Introduction this research is a pioneering investigation of the context of special needs education in Sudan, and that there are no previous studies to build on in this field. However, the only available study to comment on was a descriptive report published by the Council of Child Care (Shamseldin, 2007). The report was prepared after an unsuccessful experiment aimed at including visually disabled children in kindergartens. The experiment included a brief training for a few teachers. Interestingly, the reason behind the failure was the wish of children to go back to their special (segregated) schools because the teachers could not meet their needs and could not 'deal with them properly.' (Mosnid, 2008: p.3).

It concluded that teachers involved possess only moderate or low awareness and attitudes towards special needs education with moderate competency in this area. Teachers with higher awareness had better attitudes and competency in SEN. It was reported that female teachers have better competency and attitude than male teachers. Teachers who had training in this area had

better awareness, attitudes and competency than those with no training in SEN, also location was a factor in this respect as teachers from urban areas were better than those from rural ones. However, the report did not mention the methodology used in data collection and analysis.

The report suggested the need for a proper training programme that includes attitude building, competencies and different aspects of education of children with SEN.

This confirms the need for a comprehensive teacher training in this area as discussed in the literature.

3.7 Conclusion

It is reported in the literature that some teachers have negative attitudes towards teaching students with special educational needs. Such attitudes, however, appear to a large extent to be related to lack of experience and training. Without appropriate training, teachers may lack the specific competencies necessary to address effectively the social and educational requirements of such students.

There is a substantial body of opinion, particularly in the U.S.A., but also more recently in the U.K., that effective teacher training must be grounded on a proper needs assessment, based on the identification of required competencies, and several studies have attempted to identify relevant competencies of teachers of students with special educational needs.

Differences have been found in the way competencies are stated and classified, but consensus can be found on broad domains in which teachers need competence. Competency lists can be related to teachers' training needs in various ways, for example, interviews, questionnaire surveys, observation of teachers' classroom behaviour, and written tests of their knowledge and educationists must then decide how to translate the information derived from training needs assessment into specific programmes, and how to deliver the training, in terms of location, timing, format and so on.

This review of issues in preparing teachers to meet the needs of students with special educational needs has established a rationale and conceptual framework for this study, and has therefore, informed its methodology.

In chapters One, Two and Three, the established literature in the field of Sudan's context of SEN, special needs education provision and preparing teachers for inclusive classrooms was reviewed in order to obtain the data required to answer the research questions as is discussed in Chapter Five.

Chapter Four

The Exploratory Phase of the Research

The Exploratory Phase of the Research

4.1 Introduction

As mentioned earlier, to my knowledge, is pioneering exploration of the Sudan's context of SEN and that it does not build on any previous studies so it was necessary to carry out some exploratory research to investigate the current situation with regard to education provision for children with special education needs in Sudan. Therefore, an exploratory visit to Sudan took place in August 2005, for approximately three months, in order to carry out a series of exploratory interviews and observations, and to collect relevant documents and data.

This chapter is concerned with the two research phases referred to in the beginning of this thesis; mapping out of the current situation of special needs education provision in the Sudan, and the investigation of teachers' perceptions of their training needs in this area.

It had been proposed to firstly examine the needs and preparation of teachers for the teaching of pupils with special education needs in mainstream schools in Sudan in order to assess the feasibility of the plan, refine the research questions and develop an appropriate methodology.

It should be noted that at this stage of the investigation, teachers used the term "learning difficulties" (in a general sense) interchangeably with "special education needs" because the latter term was relatively new in Sudan and some teachers were not familiar with it. The term "mental retardation" was also used by some respondents to refer to all kinds of mental disabilities. However, for consistency in using terminology, the terms 'special education needs' and 'mental special needs' were used respectively instead.

This phase of the research is reported in four main sections. First, the objectives of the visit are outlined. Then, the methods adopted, including the location of the visit, the interview sample and the data collection methods, are reported. There follows a detailed account of the outcome. The report ends with a discussion, in which attention is drawn to key issues identified in the

exploratory phase, and the implications drawn from it for the second (main) phase of the research.

4.2 Objectives of the Exploratory Visit

The objectives of this initial visit to Sudan were to:

- Interview a small number of teachers from selected basic schools, in order to collect some information as regards provision for students with SEN;
- Try to find out, from interviews, about the attitudes of teachers in Sudan towards pupils with special education needs and their perceptions of training in this area in order to prepare for the stage of designing and implementation of data collection methods.

4.3 Method

4.3.1 Location of Study

Since Sudan has a centralised education system, and policies and curricula are uniform across the country, it was considered that a visit to a single education district would be sufficient to obtain the required information. The Local Education Authority of Khartoum was chosen, as my previous work as a teacher and a lecturer afforded me contacts with educationists and administrators which would facilitate the implementation of the study.

4.3.2 Instrument

An interview schedule was developed to guide a series of semi-structured interviews. The schedule contained 10 questions (see Appendix 4.1). The questions are linked to research questions and the literature review on preparing teachers for special education provision. It began by asking whether the interviewee had to work with students with special education needs and went on to ask about possible causes of such difficulties, support available within the school, action taken when children were identified as having learning difficulties, and training of teachers to enable them to meet the needs of these children. The schedule was prepared in English and was then translated into Arabic for those who preferred to be interviewed in Arabic.

4.3.3 Sample

In view of the exploratory nature of the study, the interviews were of the key-informant type. Interviewees were purposely chosen based on their teaching experience. At this stage of the

research, it was not clear which school stage would be the focus of the study; it was desired to explore the situation in all three stages. Therefore, two schools were selected for each grade; grade one (year 1 to 5), grade two (year 6 to 8), and two secondary schools (year 9-11). Within each basic school, two or three teachers were selected, depending on their experience, availability and willingness to participate. In the case of the basic schools, the school teacher's trainers and education supervisors were also interviewed. Only one teacher was interviewed in each secondary school, as few teachers had time to participate, due to the demands of the examinations which were taking place at the time of the study.

4.3.4 Data Collection Procedure

Administrative arrangements and contacts were made with local Education Authority officials to obtain permission to carry out the study. Introductory visits were paid to the target personnel to explain the purpose of the study and seek their agreement to be interviewed. All interviewees were assured of the confidentiality of their responses. Interviews were conducted at respondents' workplaces, by appointment. Permission was sought to tape record the discussion and all interviewees agreed to this. The tapes were later transcribed.

4.3.5 Data Analysis

The interview data were subjected to content analysis. Frequencies and percentages of interviewees giving a particular response were calculated for the sample overall since sub-groups (e.g. Grade Two teachers) were too small for meaningful analysis at this level, and because the aim was to obtain a general overview of the situation, rather than to compare perceptions among different samples.

4.4 Results

Respondents' comments in relation to each question in turn are attached to the Appendices for each respondent individually as they have shown, from the researcher's view, different and diverse information that worth mentioning as summarising them will make the reader miss a wealth of information about the country's context of SEN, and then these comments were summarised and discussed as follows:

Question 1

Do you have any pupils (children) with special education needs? If yes, please specify the types of special needs and barriers to their learning.

Summary

The main categories of special needs and learning barriers identified are summarised in Table 4.1

. Table 4.1
Summary of the responses to Question 1

Type of Difficulty	Frequency
Family circumstances	7
Visual and hearing special needs	6
Family disorders	3
Difficulty in reading and writing	3
Perceived Low IQ	3
Genetic and environmental factors	2

Respondents understood the term "special education needs" in many different ways. Almost a third of the interviewees cited unfavourable family circumstances as a source of their children's barriers to learning, a teacher noted "one of them (children with SEN) came from a polygamous and illiterate family, they just want him to spend some time outside home). The most obvious barriers that could be identified and noticed by the teachers were visual and hearing special needs. Some referred to children's low IQ (though it is not clear whether this had been tested) and others described low achievement without being more specific. Two respondents raised the point that precise classification of children's special needs was not possible due to lack of appropriate assessment instruments and procedures, one teacher mentioned "I don't have any idea what is wrong with these children but I feel they are not normal". Thus, some teachers saw special education needs as resulting from weakness in the child, and some saw social reasons for their learning problems. These views reflect the dilemma mentioned by Dyson (1998) and imply a more traditional disability approach to SEN (see chapter One).

Question 2

In your opinion, what are the reasons that might contribute to your students having special education needs, e.g. curriculum, IQ, teaching methods, time/pace?

Summary

Reasons given for children's special education needs are summarised in the following table:

Table 4.2
Summary of the responses to Question 2

Reasons	Frequency
Teaching methods	8
Low level of IQ	5
Curriculum	5
Family negligence	4
Shortage of time	3
Family education level	2
Family disorder	8
Inappropriateness of classrooms for teaching	2

Overall, a quarter of the responses, representing more than half the interviewees, indicated that children's difficulties were due to inappropriate teaching methods. A teacher commented "Most of us (teachers) are not trained to deal with such children and the curriculum is not suitable for them. The respondents mentioned that the teaching methods do not consider the individual differences of the children's learning styles. There is no use of discovery or self-learning methods. Teachers do not adapt their teaching to the students' abilities. Supporters of inclusion, like Ainscow, (2006) however, argue that the school must adapt if it is to meet the needs of all children. This was also confirmed by the Index of Inclusion, Dimension B (Booth and Ainscow, 2002, p.58)

Regarding teaching methods, curriculum, shortage of time and unsuitable classrooms, it can be seen that almost two-thirds of responses concerned school-related factors. A further quarter of

responses attributed special education needs to family factors. Interestingly, low IQ was the only child-related factor mentioned. This may be because of the situation whereby most children with special needs in Sudan attend special schools. The visual and hearing special needs referred to in answer to Question 1 were presumably not severe, or these children would not have been in mainstream schools. What emerges most clearly, however, are the teachers' varied understandings of the term "special needs", pointing to a problem of terminology (see Chapter One).

Question 3

What special help or support from teachers, counsellors, and/or the whole school do you believe these children require?

Summary

The main themes emerging in response to this question are summarised below.

Table 4.3
Summary of the responses to Question 3

The Help Required by children with SEN	Frequencies
Co-operation between the counsellor, school and children's families.	5
Co-operation between the counsellor and the teachers	4
Making remedial plans and supplementary classes	2
Counsellor's visits to the children's families	1
The counsellor sets plans for these children	1

There was a strong emphasis on the need for co-operation, with around a third of the interviewees mentioning co-operation between the counsellor, teaching staff, management staff of the school, and family of the children with special education needs, and a similar proportion emphasising co-operation between the counsellor and the teacher. Booth and Ainscow,(2002, p.50) believe that sharing a philosophy of inclusion by all those involved in special education make the school more inclusive.

Generally, however, the responses focused on information provision and follow-up of cases; none

of the respondents were specific about exactly what support was needed by the children, one respondent commented “Teachers come into this situation (inclusion) without any preparation or help from authorities or families). In countries like the U.K., the issue of support has received a lot of attention. Dyson (1998) for example, sees the emphasis on in-class support and the development of the role of the special education needs co-ordinator as contributions to breaking down the barriers between special needs and mainstream forms of schooling.

Question 4

How/to what extent is the school able to provide this sort of support? If not, what are the problems?

Summary

The responses to this question are summarised in Table 4.4 below.

Table 4.4
Summary of the responses to Question 4

Support Provided by the school	Frequencies
Encouraging the teachers to pay special attention and care for the children	4
Co-operation between the family and school to study the problems and find the proper solutions.	4
Organising supplementary classes/special Programmes	3
The school counsellor's help in studying and following up the children's problems.	3
Lack of co-operation between the family, of the children and the school.	1
Providing appropriate facilities.	1
Involving specialist teachers.	2

Several respondents emphasised that the school can play the role of encouraging the teachers to pay special attention to the children's special needs, while a similar number suggested it was the school counsellor's role to study and follow up children with special education needs but only if "schools get financial and teaching resources, experienced teachers in SEN and family support" one teacher said. Whilst five respondents referred to the role of the family, four did so in positive terms seeing the family as working in co-operation with the school, whereas the fifth had a totally negative view, appearing to see education as something that is "done to" the child by the school, and a process which parents only impede, whether through ignorance or neglect. Moreover, although several possible helping interventions were suggested, the impression was that these were targets to aim for through additional efforts rather than actions that were currently taking place.

Question 5

To what extent do you think these children are able to establish meaningful relationships with their peers in school? Please say how.

Summary

The responses to this question are summarised below.

Table 4.5
Summary of the responses to Question 5

Ability to Make Relationships	Frequencies
Unable to make relationships.	5
Able to make relationships under suitable circumstances.	6
Able to make relationships without conditions.	2

The responses reflected the strongly achievement-oriented ethos of the schools. Children with special education needs were perceived as "failures", leading to low self-esteem, withdrawal and difficulty forming friendships with peers, a respondent noted that (they are verbally abused and laughed at so they isolate themselves from others all the time). Almost half the interviewees,

however, acknowledged that these children could be helped to make friends with parental support (one respondent) or, even more, through involvement with their peers in participatory activities encouraged by the teacher. One of the principles underlying inclusion, and expressed in the Salamanca statement (1994) is the argument that it helps to remove prejudice and misunderstanding, and encourages social integration. This confirms that the teacher should be trained in this area in order to help children with SEN to make relationships that help them integrate in the school and the society.

Question 6

How do you help them in this area?

Summary

The main responses to this question are summarised in Table 4.6, below.

Table 4.6
Summary of the responses to Question 6

How to help children with learning difficulties	Frequencies
Raising the children's morale.	5
More explanation and focus on these children inside the classroom.	7
Solving the children's problem by the school counsellor	3
Giving additional time to these children outside School, if necessary.	3
Modifying teaching approach/assignments.	2

Considering that the question was concerned with children's social interaction, it is interesting to note that all respondents saw the fundamental problem as one of low achievement as indicated by one respondent (they need extra effort and time to bring them with average achievers). Most sought to remedy this by giving the children extra attention in class, and two suggested

supplementary work with these children outside school time. Only two suggested that it might be necessary to modify teaching approaches or assignment requirements for these children. Actually, as suggested by Booth and Ainscow (2002, p.82), full utilisation of staff expertise is an important indicator for success of inclusion and meeting the needs of children with SEN.

Question 7

What do you need to help them in this area?

Summary

The responses in this section are summarized below:

Table 4.7
Summary of the responses to Question 7

The Needs	Frequencies
Enough time.	5
Co-operation between the family and the school	4
Teaching aids and facilities.	3
The help of the school counsellor.	2
Specialised teachers.	2
Financial support and gifts for the children.	2
Reducing the number of children in the classroom.	1
A well-planned curriculum	1
Nothing	1

It may be concluded that time is seen as the main factor in teachers' ability to meet the needs of children with special education needs a respondent clearly stated that (If there are no proper training and teaching aids these children should better go for special schools) . This was one of the issues raised by teachers in the attitude surveys analysed by Scruggs and Mastropieri (1996). The respondents suggested a reduction in their teaching load. Co-operation between the family

and the school was also highlighted.

Question 8

What action do you take if you find a pupil has special education needs or repeatedly fails a grade? (For example, are they excluded from school? Does school call in the parents? Is there any mechanism for referring the child to medical, social or psychological services for further assessment/help?)

Summary

The responses in this section are summarised below:

Table 4.8
Summary of the responses to Question 8

Actions	Frequencies
Calling in the parents of the children to school to discuss their progress	6
Investigation of the reasons for the repeated failures to find proper solutions	5
Transferring the repeated failures to adult learning Centres	4
Transferring the repeated failures to vocational training centres	2
Reporting the children's difficulties to the school counsellor	3
Organising remedial programmes for the children's weaknesses	1
Referring for health screening	13

Six respondents, approximately half of the sample, reported that the parents of children with special education needs or repeated failures are called in to study their children's situations and agree on the proper solution which in most case as mentioned by one teacher (the child is withdrawn from education or sent to special school). None of the interviewees thought repeated failures should be excluded from the school, but they recommended transferring them to either adult learning centres or vocational training centres. Moreover, all the respondents confirmed that the school applies a mechanism of referring children with special needs for medical check. Presumably such screening would identify children with; for example, sight

or hearing impairment, which, depending on severity, might result in their being transferred to special schools.

Question 9

What training have you had to help you provide for these children?

a) In pre-teacher training

b) In-service training

Summary

The responses to the question on training are summarised below:

Table 4.9
Summary of the responses to Question 9

No. of interviewees	Training in SEN	Frequencies
13	Pre-service training.	1
13	In-service training.	0

None of the respondents received in-service training in this area, and the only instance of pre-service training was one teacher who had a First Degree in Education Psychology from the University of Khartoum. Some teachers' responses suggested that they thought lack of training was compensated for by experience in teaching. A teacher mentioned "The first time I heard about SEN when I started working in a school where I came face to face with a child with learning difficulties. Kidd (1993) however, emphasises the need for teachers to have appropriate expertise and Mittler (1992) argues that this comes from training. Ahmed (2008) views lack of suitably qualified staff as one of the main barriers to integration in Sudan.

Question 10,

What training would help you now to provide for these children?

Summary

The responses to this question are summarised in Table 4.10 below:

Table 4.10
Summary of the responses to Question 10

Training Needs	Frequencies
Training in SEN, psychology and health.	4
Training in teaching methods, aids and equipment.	2
Exchange of experience and school visits.	3
The need for loyalty, patience and understanding with children with SEN.	3
No need.	2

It can be concluded from the summary Table 4.10 that half of the respondents perceived the need for training, either in SEN, psychology and health of children, or in teaching methods and the use of special aids and equipment. These form a substantial part of initial teacher training in the U.K., while the value of shared experience and school visits is recognised in courses such as that described by Mittler (1992). Those who called for loyalty, patience and understanding were indirectly saying that they did not need specific training; rather, they appeared to assume that the ability to meet special education needs was solely a matter of the personal qualities and dedication of the teacher. However one teacher said “I don’t need any training as these children should be educated in special classes by specialists”, this reflects a negative attitude towards children with SEN which should be addressed in any future training.

4.5 Discussion

This exploratory study revealed some ambiguity in the concept of "learning difficulties" and "special education needs" in the Sudan context, resulting from the difference in terminology and practice between the Sudan and U.K education systems. Although most of the interviewees claimed to have in their classes some children with learning difficulties, their further comments suggested that their use of this term was not necessarily consistent with or equivalent to the terms special education needs or special needs as defined in the U.K. They indicated that children with cognitive, sensory or physical impairment are normally transferred to special schools, or taught in special classes, if the school has a special programme for the particular category of special need concerned. This was apparently not the case in the schools visited. Thus, to the teachers interviewed, although the term "learning difficulties" might encompass some children with cognitive or physical difficulties that were not so severe as to meet the criteria for admission to special schools, in the main it meant children who were low achievers because of lack of attention, family problems etc. In this respect the teachers' attitude was that someone or something outside school, usually the parents, is to blame. There was little recognition that modification of teaching methods might be needed to help these children, although some teachers noted that the pressure to cover a crowded curriculum in a given time made it difficult to pay sufficient attention to less able children (as noted in Chapter Two, in Sudan, the curriculum and even the text-books are decided upon by the government. Set units have to be completed in a set time. There is very little, if any, scope for individual schools and teachers to adapt to pupils' ability levels).

Most of the teachers thought that children with special education needs also had problems socialising with their peers, but interestingly, they attributed this directly to the children's being low achievers, rather than to lack of social skills. It would not be surprising if, in a school system which values "achievement" as manifested in examination success, and which does not allow flexibly to take into account differing abilities, other children may disdain, pity or patronise lower achievers and the children with special education needs exacerbating their lack of confidence and low self-esteem. Some teachers appeared to recognise that they have some responsibility to encourage these children and facilitate their

involvement with their peers.

The conflicting opinions on how best to help children with special education needs reflected the broad (or, perhaps, confused) understanding of the term. Referral to health checks was the only action on which all respondents agreed. Those who suggested involving the parents and/or school counsellor may have regarded the children's difficulties as a "social work" issue, or even as a disciplinary matter. It is not common for Sudan parents to be involved with their children's schools except on matters of discipline, and even school counsellors are often treated as administrators who are expected to be involved in school discipline. Other approaches to dealing with special education needs included private tuition, or directing them to other forms of education.

Three teachers from basic schools suggested that children with special education needs should attend adult evening classes (referring to the classes set up in recent years to combat illiteracy). It seems unlikely that classes designed for adults who for various reasons have not completed their formal education would be an appropriate environment in which to meet the academic and social needs of children with learning difficulties. The other alternative suggested (also by Grade Two Teachers) was vocational education, which is available at intermediate and secondary levels as an alternative to mainstream (general academic) education (see Chapter One). This might be appropriate for some children, but as technical and vocational education is not highly regarded in Sudan society, might simply reinforce the branding of these children as "failures". What is interesting about all these suggestions is the implication that the teachers concerned did not, in general, seem to teach or anticipate teaching children with special needs in the sense intended by the researcher. If the child's problem is a temporary personal or disciplinary matter, it will be sorted out with the parents; otherwise, the child will be directed to alternative education. Only one teacher suggested organising a special remedial programme within the school; interestingly, the teacher who suggested that was the only one with SEN training.

Teachers' perceptions regarding the number of pupils with special needs in mainstream schools appear inconsistent with the claim quoted earlier in this study, that only 10% of

pupils with special education needs are included (Ahmed, 2008). The discrepancy may arise from the fact that, in the Sudan model of inclusion, children with special education needs may be placed in a mainstream school, without being taught in a mainstream class. Another explanation may be that teachers had difficulty recognising children with special education needs, especially in the light of their lack of training in this area.

It was not entirely clear at this stage, how far children with special needs are included in mainstream schools and, if they are not, whether it is because there are few teachers trained to deal with them; or whether teachers are not trained because there is no expectation that they will teach such children.

As far as the development of this study is concerned, it appeared from this exploratory phase that a re-thinking of terminology would be needed before any further survey, and that any terms used would have to be clearly defined for respondents, in order to be sure that they all answered with respect to the same category of children. It also seemed likely that there are children in mainstream schools who have mild mental disabilities and other learning difficulties, but that teachers are not aware of them. Therefore it would be useful to try to obtain multiple perspectives on the extent of inclusion, the awareness of mainstream teachers towards special needs, and their competencies and training needs in relation to children with special education needs that may be included in their school.

4.6 Summary

In this chapter, the preliminary investigation of the situation in Sudan's schools with regard to the inclusion of children with special education needs has been reported. Basic and secondary schools in Khartoum were visited, and interviews held with a small sample of teachers, teacher trainers and education supervisors. This exploratory phase of the investigation revealed ambiguities in terminology and left the position with regard to the extent of inclusion somewhat unclear. It did, however, confirm mainstream teachers' lack of training, whether pre-service or in-service, in relation to teaching children with special education needs and, hence, the importance of identifying training needs for the future. Some lessons drawn from the exploratory investigation, which were taken into account in

planning and conducting the second phase of the research, have been highlighted. The methods adopted in the second phase of the research, and the reasoning behind them, are explained in the next chapter.

Chapter Five

Main Study Methodology

Methodology

5.1 Introduction

The previous chapter explained the exploratory study during which relevant data about Sudanese context of special needs education provision was collected and a preliminary investigation of basic schools teachers' perception of their training needs in this area was carried out. The study has provided an excellent opportunity to formulate the questionnaire and interview questions in preparation for the next stage of the research.

This chapter explains in detail the methods were used in the field to explore mainstream-school teachers' needs for training that they perceive enables them to meet the needs of children with SEN, in order to answer the research questions set out at the beginning of this thesis.

The chapter begins by describing the research location and target populations. An outline of the overall research design, indicating the choice of methods and the rationale for their selection, is then presented. There follows an account of the development of the research instruments, and a report of a pilot study conducted in Sudan, in order to refine them in preparation for the main fieldwork. Procedures for administering the instruments in the main fieldwork, together with the approach adopted in coding and analysing the data will also be explained.

5.2. Research Setting: Location and Target Population

5.2.1 Location

The research was conducted in the education district of Khartoum. Since Sudan has a centralised education system, where all schools follow the same curriculum and use the same textbooks, any region should be representative as far as those particular aspects are concerned. The Khartoum area was chosen, because Khartoum is the capital of the country with estimated 22% of the population living in it (according to the 2008 census) and it has a large number of schools covering diverse districts with different socio-economic and demographic characteristics. Also, the researcher's personal and professional links with the area facilitated gaining access for the research.

5.2.2 Target Population,

The populations of interest to this study are mainstream basic schools teachers, teacher trainers and educational supervisors (whose role is somewhere between that of inspectors and advisors, though tending more to the former).

The investigation will not be confined to boys' schools, although, in Sudan, for cultural and religious reasons, strict segregation between the sexes is preserved throughout the education system, apart from kindergarten and some universities. Basic school pupils are taught only by teachers of their own sex (see Chapter One Sudan context of SEN). However it would not be difficult for a male researcher to enter a girls' school and seek direct access to female respondents once the authorities' approval was obtained.

The decision to focus on basic schools was based on certain special features of the Sudanese education system which was reviewed in Chapter One, as a result of which the SEN issue is mainly applicable in these schools. Specifically:

- a) Education in Sudan is not compulsory beyond the basic stage (age 6-14 years).
- b) Progression to successive stages depends on passing examinations, e.g. a student must gain the basic school certificate before being allowed to enrol in secondary education (ages 14-17).
- c) Pupils who progress beyond the basic stage do not necessarily stay in "general" education, as there are secondary level institutes which provide various kinds of vocational training. Students of lower ability are often directed to these institutes.
- d) Secondary education (ages 14-17), in particular, is basically regarded as preparation for university or college.
- e) The few studies so far conducted in Sudan with inclusion of children with special needs into mainstream schools, although in separate classes, have only involved basic schools.

For all those reasons, it is likely that most children with special educational needs will leave mainstream general education after the basic stage.

In addition to teachers' perceptions and experiences, the research explored those of two other stakeholder groups who might be expected to provide insights into the issues of concern. The first was teacher trainers, who would be able to provide information on the current coverage of SEN-related matters in teacher training, and might be expected to have opinions on the competencies that teachers need to acquire to deal with mainstreamed pupils with SEN. The second group was Educational Supervisors (equivalent to school inspectors) who would be in a position to observe what is actually taking place in the schools with regard to SEN, and who, potentially, might be a source of information and advice for teachers.

5.3 Research Design

A survey design was adopted for this research as a main method for data collection; in addition, interviews and literature review were used as complementary methods to answer the research questions as is shown in Table 5.1.

A survey can be defined as:

"A method of gathering information from a number of individuals, a 'sample'. in order to learn something about the larger population from which the sample is drawn".
(Ferber, et al., 1980:p.3)

Surveys are not concerned with individuals as individuals, but with providing information about prevailing conditions and trends (Verma and Mallick, 1999). Thus, in this research, the concern was not to test or investigate the SEN related competencies and training needs of individual teachers, but to build up a picture of the general situation of teacher competencies and training needs in what, for Sudan, is a largely new field. It is too early to intervene in the "natural" situation by experimenting with new training models and so on; what is needed is an understanding of the nature and degree of existing situations or conditions. The research is also analytical, in that comparisons are made between the perceptions of different stakeholder groups. Moreover, attempts are made to relate teachers' perceptions of their competencies and training needs to such variables as age and experience.

In collecting the data, a triangulation approach was applied. Triangulation as was used in this study means examining the same data through different strategies, in order to strengthen the validity

of the research results. Methodological triangulation refers not only to using different research techniques, but also to the use of different forms of the same technique (Kane, 1984).

Bell (1993) defines triangulation as cross checking the existence of certain phenomena and the veracity of individual accounts by gathering data from a number of informants explored in depth and from multiple perspectives. The results from one set of the data will help to inform and refine those from the other data, so that the conclusions drawn are meaningful, precise and representative.

Two methods were used to gather information: a questionnaire survey and a small number of stakeholder interviews with teachers, teacher trainers and school inspectors in addition to the literature review.

Questionnaires can cover a large sample over a wide area at minimum cost and time (Gall, Borg and Gall, 1996). They provide data in a standardised form which facilitates analysis and, in the educational context, can be administered with minimal disruption to the normal daily routine of the institution.

Self-completed questionnaires provide people with a medium for the anonymous expression of strongly-held views (May, 1997), which can be valuable when a sensitive topic is being researched. In the present research, for example, teachers' attitudes towards pupils with SEN is a potentially sensitive issue, especially if they oppose trends towards inclusion or are critical of school or national policy. Teachers may also feel more able to admit to weakness in some competencies, if their replies are anonymous. A disadvantage, however, is that questionnaires cannot probe deeply into respondents' opinions and feelings (Gall et al. 1996).

Interviews are a useful supplement to questionnaires because they allow greater depth than other methods of data collection (Cohen and Marion, 2000). The interviewer can probe respondents' thoughts, to yield rich insights into people's experiences, opinions, aspirations, attitudes and feelings (May, 1997).

The major advantage of interviews is their adaptability. Skilled interviewers can follow up a respondent's answers to obtain more information and clarify vague statements. They

can also build trust and rapport with the respondents, thus making it possible to obtain information that an individual may be unwilling to reveal by any other data collection method (Gall et al, 1996).

Cohen and Marion (2007) consider the use of multiple methods to be particularly appropriate where a controversial aspect of education needs to be evaluated more fully. In the Sudan context, the inclusion of pupils with SEN and related issues is such a matter. Inclusion is a new idea in Sudan, raising many issues in relation to teaching approaches, teacher competencies and teacher preparation which need to be explored in depth and from multiple perspectives. The results from one form of data will help to inform and refine the other data, so that the conclusions drawn are meaningful, precise and representative (Verma and Mallick, 1999).

A major problem with interviews, however, is that they are heavy consumers of resources (Verma and Mallick, 1999). Another limitation of the interview method is the difficulty of standardizing the interview situation to avoid influence by the researcher (Gall et al., 1996).

In the light of these considerations, the use of both methods allowed the researcher to tap the strengths of each source and overcome their limitations. The questionnaire allowed a large volume of standardised, comparable data to be collected from teachers, while a comparatively small number of interviews provided depth and richness, and enabled the researcher to tap the special knowledge and perceptions of key informants. The relationship between the research questions and the selected methods is shown in Table 5.1.

Table 5.1
Research Questions and Methods of Investigation

	Research Questions	How Answered
1	What knowledge, skills and attitudes do teachers currently have, in meeting the needs of children with SEN?	Questionnaire and Interviews with teachers.
2	Are there significant relationships between teachers' knowledge, skills and attitudes and their personal and professional characteristics such as age, teaching experience, and previous SEN training?	Questionnaire.
3	What kind of training/support in teaching children with SEN is currently available?	Interviews with teacher trainers and educational supervisors.
4	What training, either pre-service or in-service, have the teachers had in competencies related to SEN?	Questionnaire
5	What are the competencies (knowledge, skills, and attitudes) perceived to be needed by teachers to enable them to meet SEN?	a) Review of competency literature. b) Interviews with teacher trainers and educational supervisors
6	Do participants perceive a need for teachers to receive further (or different) training in SEN? If so, in what particular aspect.	a) Questionnaire. b) Interviews with teachers, teacher trainers and educational supervisors.

5.4 Development of the Questionnaire

This section describes the questionnaire developed to explore teachers' perceptions of their competence and training needs in relation to dealing with special educational needs within the mainstream classroom. The sources of questionnaire items and the rationale for their

selection are explained, validity issues are discussed and the translation of the questionnaire is described.

5.4.1 Content and Sources

The general format and layout of the questionnaire were modelled on an instrument used by Howell (1999). It consisted of four main sections, as follows:

Section I- Formal training related to SEN

Section II - General skills related to SEN

Section III - Future training opportunities

Section IV - Personal data

These were preceded by a definition of special educational needs, which was included in an attempt to ensure consistency of understanding among all questionnaire respondents and, hence, maximise the validity, reliability and comparability of the responses. The text of the questionnaire can be found in (Appendix 5.1). The following paragraphs describe each component.

Definition

The definition of special educational needs provided in the questionnaire was chosen because it is a specifically Sudanese definition, the only one currently available. It appears in a government publication (Ministry of Education, 2005) on the development of special education in Sudan. The definition used in the model for this questionnaire (Howell, 1999) was not adopted because it included categories that do not fall within the development of the research instruments as described in the following sections.

The Sudanese understanding of special needs (e.g. economically disadvantaged) and/or are culturally inappropriate (e.g. individuals who are in programmes that are non-traditional to their gender).

Section I:

Preliminary indications from the researcher's exploratory survey suggest a general lack of in-service training, and that teachers may have had little or no pre-service training directly related to special needs. It is important to clarify the training status of the respondents, as the literature review has suggested that training is one of the factors that can affect attitudes and competencies in relation to pupils with SEN. This section therefore contained two closed questions asking how much pre-service training teachers had had, directly related to special needs, and whether they had received in-service training related to special needs within the past two years. Teachers who had attended in-service training were asked to describe briefly the theme, type and duration of the training

Section II:

This section contained 40 statements reflecting 10 domains of knowledge, skills and attitudes in relation to special needs. Teachers were asked to respond to each statement on two 5-point Likert-type scales. The first scale, expressing level of agreement with the statement (from 1, disagree, to 5, agree) was intended to explore teachers' perceptions of their knowledge and ability in relation to each of the 40 competencies. On the second scale, teachers were asked to indicate their need/wish for training in each of the competency areas, on a scale from 1 (low) to 5 (high).

In addition, an open question was included for each domain, inviting teachers to comment further on their knowledge/training needs, if they so wished.

Closed questions facilitate quantification and analysis of the results, while open questions have the advantages of freedom and spontaneity of the answers, and are useful for exploring ideas and awareness.

Items in this section were taken from a variety of sources: Hesse (1977); Whitten and Westling (1985); Sass-Lehrer and Wolk (1984); Hornby et al. (1991); Howell (1999); and Hornby et al. (1991); though similar items are found in other sources.

As mentioned in the literature review, a difficulty arises because of the variation in category headings and classification of individual items between authors. Some categories related to the planning, management and implementation of instruction are obviously closely related and are categorised differently in different frameworks. Sass-Lehrer and Wolk (1984) found from factor analysis that three categories could be subsumed into one. The categorisation in the questionnaire is, therefore, only one of several possibilities that would be consistent with the frameworks reviewed.

Section III:

This section contained 12 statements related to the teacher's interest in future educational opportunities. Items were expressed in the general form, "I would like..." followed by a description of a particular training format. Teachers were asked to express their opinions on a 5-point, Likert-type scale, from 1 (= strongly agree) to 5 (= strongly Disagree), with 3 representing "not Sure".

This section was adapted from Howell (1999). Howell's instrument was developed in USA and reflects the sort of training options available there. Most of these items should be applicable to Sudanese teachers, even if they are not currently available. One of Howell's items, related to training in the mornings before school, however, has been omitted as it was thought not to be feasible in Sudan, where the school day starts at about 8 a.m.

Section IV:

Items in this section were formulated by the researcher. This section is intended to gather information on demographic variables which the literature has suggested are associated with differences in teachers' attitudes to SEN, namely, age, qualification, teaching experience, experience in teaching children with special educational needs, administrative support.

In line with the advice of Borg and Gall (1983) the questionnaire was accompanied by a covering letter explaining the purpose of the research, the value of respondents' co-operation, and arrangements for the return of the questionnaire, as well as giving assurances of anonymity and confidentiality.

5.4.2 Validity

To provide content validity, all items in Section II were based on previously validated instruments and/or competencies on which there is consensus among educationists. Care was taken to ensure that all major domains found in the literature were covered. Items from other instruments which clearly relate to other (e.g. US or UK) education systems and are not relevant to Sudan (e.g. related to specific legislation, statementing procedures etc.) were discarded. Table 5.2 shows the key themes covered, with their relationships to the literature review and to issues raised in the initial exploratory survey conducted by the researcher, referred to in Chapter Four.

Table 5.2
Themes and Sources of Questionnaire Items

Theme	Other category names used for similar items	Key authors	Related issues from exploratory study
Knowledge (Items 1-4)	General Knowledge Legal Characteristics of Learners Professionalism and Ethical Practices	Whitten and Westling (1985), Williams (1988), Hammel (1994). As above, + CEC / Polloway and Patton (1997). CEC / Polloway and Patton (1997) CEC / Polloway and Patton (1997)	

Attitudes (items 5-7)	Orientation and Attitude	Hornby et al. (1991) Howell (1999)	Negative attitudes from many teachers and they did not expect to teach SEN.
Assessment, Evaluation and Recording (items 8-12)	Pupil Assessment Assessment and Evaluation Assessment, Diagnosis and Evaluation Assessment and Identification Evaluation and Re- Wording	Sass-Lehrer and Wolk (1984). Whitten and Westling (1985) Williams (1988) Hammel (1994) CEC / Polloway and Patton (1997) Hornby et al. (1991) Hornby et al. (1991)	Teachers had limited awareness of SEN and difficulty recognising that they may have had such pupils in their classes.

Planning, Organisation and Management of Instruction (items 13-20)	Organisation and Management of Instruction Planning Classroom Management Instructional Content and Practice Planning and Managing Teaching Environment. Goal-setting and Objectives. Planning and Implementation	Sass-Lehrer and Wolk (1984) Whitten & Westling (1985) Williams (1988), Hemmell (1994), Hesse (1977) CEC / Polloway and Patton (1997) CEC / Polloway and Patton (1997) Howell (1999); Hornby et al. (1991) Hornby et al. (1991)	Inappropriate l inadequate facilities.
Curriculum Adaptation (items 21, 22)	Instructional Content and Practice Curriculum	Hesse (1997), CEC / Polloway and Patton (1997) Whitten & Westling (1985), Williams (1988) and Hemmell (1994)	Complaints of rigid, Overcrowded curriculum.

Instructional Competencies (Items 23 - 26)	Instructional Content and Practice Planning and Managing Teaching Environment. Goal Setting and Objectives Planning and Implementation	Sass-Lehrer and Wolk (1984) CEC / Polloway and Patton (1997) CEC / Polloway and Patton (1997) Hornby et al. (1991) Howell (1999) Hesse (1997) Hornby et al. (1991)	Inappropriate teaching methods cited by some teachers as a cause of learning difficulties.
Management of Behaviour (Items 27-30)	Behaviour management. Teaching and Learning Facilitation	Whitten & Westling (1985); Hesse (1977) CEC / Polloway and Patton (1997) Hornby et al. (1991)	Pupils with SEN have difficulty making relationships with peers. Some teachers thought they could promote social integration.
Use of Resources (Items 31, 32)		Howell (1999)	Pupils with difficulties referred to medical unit but no other support mentioned.

Counselling, Communication and Collaboration (Items 33-37)	Family Education and Guidance Professional Competencies Communication and Collaborative Partnerships Counselling / Consultation	Sass-Lehrer &Wolk (1984) Sass-Lehrer &Wolk (1984) CEC / Polloway and Patton (1997) Hornby et al. (1991)	Culture of blame. Negative attitude to parents. Possible involvement of school counsellor.
Personal Skills (Items 38-40)	Personal Characteristics and Traits	Hornby et al. (2000) Sass-Lehrer &Wolk (1984)	Some teachers seemed to rely on these (e.g. patience, dedication).

In addition, content validity was assessed by submitting the questionnaire to expert judges for examination of its relevance and clarity.

5.4.3 Translation

The final questionnaire was translated into Arabic by an expert English-Arabic translator, and the translation checked by experts in the Unit of Translation and Arabisation, University of Khartoum.

5.5 Interview Schedules

To obtain additional, qualitative information from a small number of teachers in the surveyed schools, and to explore the perceptions and opinions of teacher trainers and educational supervisors, semi-structured interviews were used. In the semi-structured interview, questions are normally specified on a schedule, but the interviewer has more freedom to probe beyond the answers, to obtain both clarification and elaboration entering into a dialogue with the interviewee. Such interviews allow people to answer more on their own terms than the standardised interview permits, but still provide a greater structure for comparability compared with the focused or unstructured interview (May, 1997).

The three interview schedules were prepared as follows:

5.5.1 Educational Supervisors (Inspectors)

This schedule consisted of 15 open-ended questions. The first three questions were to elicit information about respondents' background experience, in education in general, and as supervisors. Four questions sought to establish the supervisors' current workload: the subjects supervised, number of schools and teachers visited, and frequency of visits. These were explored as factors that might have a bearing on respondents' opportunity to observe SEN-related practice, as well as to advise teachers. Questions 8-10 concerned supervisors' observations of teachers' competencies and difficulties in dealing with pupils with SEN. Three questions were then directed to the availability and effectiveness of support and advice for teachers in relation to SEN - whether from supervisors themselves or from other sources. The last two questions dealt with supervisors' perceptions of teachers' pre-service and in-service training needs (see Appendix 5.2).

5.5.2 Teacher Trainers

The schedule for teacher trainers consisted of eight open-ended questions with supplementary questions. Again, the schedule began by explaining the respondents' backgrounds and experience; in this case, as teacher trainers, in SEN, and in the design, delivery and evaluation of SEN-related courses. They were then asked what knowledge, skills and attitudes they thought teachers would need to deal with pupils with SEN in the mainstream classroom. Trainers' perceptions of the role of current in-service and pre-service training programmes in enabling teachers to develop these competencies were then explored. In the next two questions, trainers were asked how they thought current provisions could be improved, and what factors, if any, might constrain the provision of appropriate training. Specific suggestions for what pre-service and in-service training should be provided, and how, were sought in the last two questions (see Appendix 5.3).

5.5.3 Teachers

The purpose of the teacher interviews was to complement the questionnaire data with in-depth data from a small proportion of the teachers participating in the survey, to explore what is actually happening in the schools in respect of children with SEN. The schedule contained 10 questions (see Appendix 5.4). The first question was to ascertain whether teachers were currently teaching or had previously taught, in the mainstream classroom, children with SEN and, if

so, what types of special needs they encountered. Questions 2 and 3 concerned teachers' difficulties in meeting the needs of these children. Question 4 asked teachers about the methods or approaches they used in teaching pupils with SEN. There followed three questions exploring teachers' experience of pre-service and in-service training in relation to SEN, and a question about sources of information to which teachers might have recourse if they had a problem in relation to a child with SEN. The last two questions concerned teachers' perceptions as to training needs in relation to SEN.

5.6 Pilot Study Report

A pilot study was carried out in accordance with the recommendations of writers on research methods such as Gall, Borg and Gall (1996), Bell (1993) and Oppenheim (2000) in order to check the clarity, validity and reliability of the research instruments, and to test the proposed administration procedures, in order to identify and correct possible ambiguities or weaknesses before the main fieldwork. It is also recommended that, in principle, any aspect of a social survey can and should be piloted.

Piloting aims to see how the survey works and whether changes are necessary before the start of the full-scale study. It provides an opportunity to identify and solve unforeseen problems in the instrument content and administration procedures (Kidder, 1981). It provides an opportunity to determine whether individuals in the sample have sufficient knowledge and understanding to express a meaningful opinion about the topic being researched (Gall, Borg and Gall, 1996) and to identify and remove any items that do not yield usable data (Bell, 1993).

For the purpose of this research the pilot study is defined as a small experiment designed to test the research design and gather information prior to the main field study in order to improve the latter's quality and efficiency. This will help the researcher reveal deficiencies in the design of the proposed methods or procedure and these can then be addressed and adjusted before the main study. Moreover, as some of methods of data collection used in this study are adapted from existing ones and some of them are newly designed, the pilot study is needed in order to standardise these methods to the target population. This will indicate how suitable the methods are for the purpose of the study.

On the basis of these theoretical considerations, a pilot study was conducted to try and test the questionnaire and the interview questions on a relatively small number of people from the research population in order to find out how suitable these modes of data collection were for the purpose of the study, and whether there were problems or shortcomings with them so that necessary actions should be taken before the main phase of the study.

This section is divided into two main sub-sections: the first is concerned with the questionnaire and the second with the interviews. Within each sub-section, the sampling and administrative procedures are explained and the pilot outcomes reported.

5.7 Teachers' Questionnaire

This section discusses the validation of the questionnaire, the selection of a pilot sample of basic school teachers, and the reliability testing of their responses.

5.7.1 Questionnaire Validation

Validity is one of the indicators that occupies a prime position in the researcher's thinking throughout the research, simply because it reflects on its integrity. The research may stand or fall, depending on how sound the procedures adopted by the researchers are. As noted by Leedy (1977), the principal question that validity asks is: Are we really measuring what we think we are measuring? Therefore, validity entails accurate measurement of the concept (Gilbert, 2001).

One of the measures which can be used is the questionnaire. Each question in the questionnaire is a measure, and each question, as Oppenheim (2000) indicates, has a job to do: to measure a particular variable. Validity is the technical term that can be used to check on how well each question does the job. Validity, therefore,

“is concerned with the soundness, the effectiveness of the measuring instrument. In a standardized test, for instance, validity would raise such questions as: what does the test measure? Does it in fact measure what it is supposed to measure? How well, how comprehensively, how accurately does it measure it?” (Leedy, 1997: p32).

Validity is an issue that is equally important for both qualitative and quantitative research. It is concerned with, from the former point of view, “honesty, depth, richness and scope of the data achieved, the participants approached, the extent of triangulation and the disinterestedness or objectivity of the researcher (Cohen et al., 2000, p.105). In qualitative data, there is a degree of bias that is caused by subjectivity, opinions and attitudes of the respondents. This naturally reflects on validity which, therefore, should be treated as a matter of degree rather than an absolute state (Gronlund, 1981). In the case of quantitative research, validity is concerned with sampling, instruments and the statistical analysis of the data (Cohen, et al., 2007).

There are three aspects of validity that have a major influence on the outcome of research and are used as measurements against which to judge whether a study is, in fact, a worthwhile piece of research. Firstly, there is its ability to sustain its explanation of the data, i.e., its freedom from bias (internal validity). This concern applies to both quantitative and qualitative research. Secondly, there is the degree to which the outcomes of the research can be generalized to a wider population (external validity). Thirdly, the instrument adopted by the researcher must comprehensively cover the item, situation and factors under study (content validity) (Cohen, et al., 2007).

In the current research, the questionnaire adopted as the main method of data collection underwent a rigorous check in order to ensure a high degree of validity. Since the questionnaire was developed in English, it had to be translated into Arabic, the mother tongue of the target population; however, a lesson was learnt from the early stages of the pilot study that an English version of the questionnaire should be applied as well as the Arabic version for the following reasons:

- 1- All basic school teachers are English speakers at different levels regardless of the mother tongue of each teacher, so some of them may prefer one language to the other.
- 2- There are a considerable number of teachers whose mother tongue is English. Those teachers will be excluded from selection if only the Arabic version is used as a method of data collection.
- 3- The Sudan constitution (2005) reflects this diversity by stating that Arabic and English are the country's official languages.

Accordingly, a further validation procedure was carried out in Sudan, to check the content validity of the Arabic and English form of the questionnaire, the clarity of its wording, and its suitability to the Sudan cultural context. The content validity of the questionnaire was established by a panel of 10 advisors who were asked to revise the items to ensure their accuracy, clarity and suitability for use in the Sudanese culture. The advisors were selected from among Education and Educational Psychology specialists from the Faculty of Education, University of Khartoum. These advisors were chosen for their research expertise, and also because these would be the people involved in any implementation of training in relation to SEN. At the same time, they were independent of the sample with whom the questionnaire was to be used. The advisors' remarks on the questionnaire items were collected and some items were modified according to their remarks. Appendix 6.5 shows the modified items.

The panel of advisors also suggested the addition of several new items, as follows:

8. I feel happy to teach pupils with special learning needs.
9. It is important to teach pupils with special learning needs in order to develop their learning skills.
10. I prefer working with pupils with special learning needs to working with pupils who do not have SEN.
11. I do not feel happy when I work with pupils with special educational needs.
12. Work with pupils with special educational needs is a waste of my time.
13. Teaching pupils with special educational needs is a complicated task.

It is noticeable that item 11 is the reverse of item 8 and as such would be redundant. Moreover, three of the items suggested are negatively worded, unlike the remainder of the instrument and would, therefore, need reverse scoring. However, the researcher accepted provisionally the judges' suggestions, pending the outcome of piloting.

It is noteworthy that all the additional items suggested by the judges were attitudinal items. The strengthening of this aspect of the questionnaire is important in the cultural context of the study, where SEN is a relatively new concept.

In order to ensure the questionnaire's content validity, the researcher asked the members of the advisory committee to express their agreement or disagreement on the relevance of each item of the teachers' questionnaire. The outcome is shown in (Appendix 6.6).

From Appendix 6.6, it can be seen that the level of agreement of the panel of advisors on the teachers' questionnaire items ranged between 80% and 100%. This result indicates that the questionnaire has acceptable validity in terms of the fact that it measures what it is intended to measure according to the study questions set out at the beginning of this thesis. The panel of advisors also recommended moving the personal background questions (originally section iv) to the beginning of the questionnaire, to gain teachers' confidence by presenting them with easy questions first. This suggestion was accepted, and the necessary changes made before piloting the questionnaire with the teacher sample. The panel of advisors suggested Item 11, which is simply the reverse of item 8, to be deleted. The two other negatively worded items suggested by the panel of advisors were changed to positively worded ones to facilitate coding and analysis, as follows:

Item 12 was changed to: Work with pupils with special needs is a worthwhile use of my time.

Item 13 was changed to: Teaching pupils with special educational needs is straightforward. The final important suggestion by the judges was the recommendation to reduce the items from 57 to 40 items as the first version of the questionnaire was too long and that could incur a low level of responses and an increase in unanswered questions. This suggestion was also taken into consideration and the items were reduced accordingly (Appendix 5.7)

5.7 The Pilot Sample

A list of all basic schools within the Khartoum education authority was obtained from the state education authority, as a sampling frame.

Twenty five basic schools were selected at random, five from each district in Khartoum, to represent the pilot sample. The total by gender was eleven girls' schools and fourteen boys' schools.

The questionnaires were distributed to head teachers in each school, and enlisted their co-operation in distributing them to thirteen teachers in each school. Three weeks were allowed

for teachers to complete the questionnaire, after which time the researcher returned to the school to collect the responses in person.

Tables 6.3 and 6.4 indicate the distribution of the teachers' pilot sample according to schools and the response rate in each district.

Table 5.3
Distribution of the questionnaires and response rate (pilot study)

District	Number of Questionnaires Distributed	Number of Questionnaires Returned	%
1) Khartoum	65	38	58.5
2) Umdurman	65	42	64.6
3) Khartoum North	65	42	64.6
4) Sharq Al-Neel	65	39	60
5) Al-Kalakla	65	46	70.8
Total	325	207	63.7

It can be seen from the table that the overall response was 207 out of the 325 questionnaires distributed, i.e. 63.7 % (90 female teachers and 117 male teachers). This is a relatively acceptable level of response, and in some schools, the response rate was little more than 50%. In light of this outcome, it was decided that it would be more favourable, in the main study, for the researcher to distribute the questionnaires in person, preferably arranging a session during which they could be completed in his presence, in order to maximise the response rate.

That technique was applied to the distribution of the questionnaire in Al-Kalakla district and produced a very high response.

The following sequence of tables shows the demographic characteristics of the sample, based on their responses to the questionnaire.

Table 5.4 shows the distribution of the teachers' pilot sample according to their age.

Table 5.4
Distribution of age of teachers' sample

Age	No.	%
a) under 30	47	22.5
b) 30-39	88	42.5
c) 40-49	52	25
d) 50 and over	20	10
Total	207	100

Table 5.5 show the distribution of the teachers' pilot sample according to general teaching experience.

Table 5.5
Distribution of teachers' experience in teaching

Period of experience	No.	%
a) Less than 5 years	39	18.8
b) From 5 - 10 years	127	61.2
c) More than 10 years	41	20
Total	207	100

Table 5.5 shows the distribution of the basic school teachers' pilot sample according to their qualifications.

Table 5.6
Distribution of teachers by qualification

Teachers' qualifications	No.	%
a) Bachelor in Elementary Education	70	33.8
b) Bachelor in Education	51	24.6
c) Diploma in Education (1 year study)	41	19.8
d) Other qualification*	45	21.7
Total	207	100

*Such as the Diploma in Education (3 years after obtaining intermediate school certificate.

Table 5.7 shows the distribution of basic school teachers according to experience in teaching pupils with special educational needs.

Table 5.7
Distribution of teachers' experience in teaching pupils with SEN

Kind of school	No	%	Period by years
Special school	0	0	0
Special class within mainstream school	13	6.3	From 1 - 3 years
Ordinary class in mainstream school	194	93.7	From 1 - more than 10 years
Total	207	% 100	

The demographic information shows that responding teachers covered a wide age range. They included teachers with general degree level or elementary teaching qualifications, or post graduate diplomas, as well as older teachers who had qualified via college diploma courses which have subsequently been abolished. They covered the full range of grade levels taught in elementary schools. The majority had at least five years' teaching experience. In these respects,

the researcher considers that adequate coverage of the target population was achieved and that respondents had sufficient teaching experience to be able to answer the questionnaire. It was recognised, however, that random sampling procedures, if feasible in the main study, would increase confidence in the representativeness of the sample.

The administration of the questionnaire went smoothly and teachers found the items and response format clear and easy to understand. No problems were raised. A few teachers made comments about SEN issues in the open spaces provided, but none commented on the research instrument.

5.8 Questionnaire Reliability

The consistency over time of respondents' answers was measured by the test-retest, for each item and each dimension, with a two-week interval. Since, however, with measures of attitude and opinion there is a possibility that there may be a change in the opinions being measured, from one administration to another, a stability measure such as test-retest is not the only (or even most appropriate) measure of reliability. For this reason, internal consistency was also measured.

Internal consistency, the most widely used estimate of reliability, indicates the degree of homogeneity of the items in an instrument of the various internal consistency measures available, the one selected for this study was coefficient alpha (Cronbach, 1990) which is the appropriate type of reliability for attitude instruments and other measures that contain a range of possible answers for each item, such as agree-disagree (McMillan, 1996).

Full details of the reliability of the test-retest and Cronbach's alpha reliabilities for each dimension (Appendix 6.8), are discussed below.

The test retest correlation for individual items for level of agreement was 0.9841. For training need/wish was 0.9876.

The split half reliability coefficients were as follows:

- Correlation between forms was 0.9518.
- Alpha for part one was 0.9856.

- Alpha for part two was 0.944.

All correlations were significant at $p = 0.01$. Reliability values for each dimension taken as a whole ranged from 0.83 to 0.98. Table 5.8 shows Test-retest reliabilities for level of agreement and need/ wish for training.

Table 5.8
Test-retest for questionnaire Dimensions

Dimension	Reliability for Level of agreement	Reliability for need/wish for training
Knowledge	0.86	0.85
Attitudes	0.94	0.96
Assessment Evaluation and Recording	0.93	0.97
Planning, Organisation and Management	0.96	0.98
Curriculum Adaptation	0.98	.095
Instructional Competencies	0.91	0.93
Management of Behaviour	0.92	0.91
Use of Resources (material & human)	0.83	0.84
Counselling	0.91	0.90
Personal Skills	0.97	0.96
Future Educational Opportunities	0.95	NA

Reliability can be affected by several factors, such as the heterogeneity of the group being tested. It is also a function of the trait being measured. According to McMillan (1996) reliability of .80 or above is generally expected for achievement tests, whereas estimates of .65 are acceptable for measuring personality traits and attitudes. Studies of groups (as opposed to those where the results will be used to make decisions about individuals) can tolerate a lower reliability, sometimes as low as .50 in exploratory research. De Vaus (2001 p.55) indicates that if the correlation of test-retest is high (a rule of thumb is 0.8 or above) then we assume the question is reliable.

In the light of these comments, the reliability values for the dimensions can be regarded as highly satisfactory, showing a good level of both stability and internal consistency.

Regarding the item values, a lower level of item reliability is acceptable when the data are to be analysed and reported at the group level, than at the level of individual respondents (Gall, Borg and Gall, 1996).

Spilt-half reliability test was also carried out. This test is meant to calculate the total score for each randomly divided half of the questionnaire. The estimate as shown in (Appendix 5.9) is the correlation between the two total scores. However, the test shows very high correlation between the two halves of the questionnaire

5.9 Decisions made following the Pilot Study

In the light of the pilot experience, modifications were made to the instrument content and administration procedure, as follows:

5.9.1 Content

The revised version of the questionnaire is attached (Appendix 6.7). A further change made to the format of the Arabic version (Appendix 6.10), to increase clarity, was to write the Likert scale responses (strongly agree, etc.) in full at the head of the respective columns, rather than relying on abbreviations which might be unfamiliar in Arabic.

5.9.2 Administration Procedure

The reliance on headteachers for the questionnaire distribution may have adversely affected reliability, since it cannot be guaranteed that the conditions under which data were collected were the same for all schools, or between the two administrations of the instrument. As indicated earlier, this method of distribution may also have contributed to the relatively low response rate at the beginning of the pilot study. For these reasons, it was decided that, in the main study, the questionnaire should be administered by the researcher and five trained graduates in person. Preferably, all respondents at a given school should answer the questionnaire at a single sitting, with the researcher and assistants on hand to clarify any ambiguities. As mentioned earlier, versions of the questionnaire and interviews in both Arabic and English languages should be

used for data collection in the main phase of the study in order to eliminate the factor of sampling bias.

5.9.3 Interviews

In this section, the piloting of the three interview schedules is reported and the revisions to the schedules made in consequence of the pilot outcomes are explained. Since the interview as a method of data collection tends to be less reliable than the questionnaire, certain procedures as suggested by Silverman (1993) were used to enhance the reliability of the interviews such as the careful piloting and the use of closed questions in addition to the high degree of structure in the interview.

5.9.4 Educational Supervisors' Interviews

To gain access to respondents, a visit was made to the offices of the state education authority and purpose of the study was explained. Three male supervisors who were currently available and willing to co-operate were interviewed. Because of the small number involved, to save time, the three supervisors were interviewed as a group.

The interviews were conducted in May 2007. All interviewees gave permission for their responses to be recorded.

Responses were subjected to Content Analysis. Answers were grouped according to their similarity and use as illustrative evidence.

A summary of the responses gathered from the interviews with education supervisors, teacher trainers and teachers is given question by question in (Appendix 6.11).

From the pilot interviews, it was recognised that a possible ambiguity existed in relation to Q8. Had inspectors not noticed efforts to assist pupils with SEN because no such efforts were made, or because there were no SEN pupils in the classes? It was decided, therefore to ask two separate questions in the main study:

1. Are there pupils with SEN in any of the classes you visit?

2. From your observations in the schools, to what extent do you think teachers try to give help to such pupils?

The responses to Q.1 seem somewhat contradictory; on the one hand, the inspectors claimed to be able to advise teachers on SEN, but on the other, they admitted to lack of experience in this field. This may mean that there was some ambiguity in inspectors' understanding of the question. "Are able to . . ." could mean "have the knowledge and experience to..." or simply "are in an appropriate official position to..." To avoid this potential ambiguity and extract more meaningful information in the main study, it was decided to substitute this question with three new ones, as follows:

1. What training and/or experience have you had in the area of SEN?
2. Is your current level of knowledge about SEN sufficient to enable you to advice and support teachers in dealing with SEN?
3. Are you ever asked for such advice, or do you ever volunteer it?

In addition to these changes, it was decided to add another question to the schedule, namely: What do you see as the priorities for training in SEN? It was hoped that this would yield more focused answers which would help in formulating recommendations for the future. The revised version of the educational supervisors' interview schedule will be attached as an Appendix (6.12).

5.9.5 Teacher Trainers' Interviews

Because of the small number of potential interviewees available, and the constraints of their work schedules, a single pilot interview was conducted with a senior female member of staff at the Faculty of Education, University of Sudan. The interviewee found the questions clear, understandable and relevant to the purpose of the study as explained to him beforehand. However, minor revisions were made to the questions to improve their quality and clarity. It was interesting to note, in the teacher trainer's answers to Q4, the emphasis on attitudinal competencies and personal skills. His answers throughout also reflected an emphasis on the processes of candidate selection, training and evaluation, without, however, specifying particular instructional competencies required.

The revised version of the educational supervisors' interview schedule would be attached as an Appendix (6.13).

5.9.6 Teacher Interviews:

Three pilot interviews were carried out with teachers (one female and two male teachers), with the following outcomes:

All three teachers thought attention should be paid to training teachers in recognising SEN. One called for more research in the field of SEN and another thought it was still necessary to establish exactly what was meant by the term.

The teachers' responses highlighted the possibility that some teachers may not be familiar with the concept of SEN and the consequent need to ensure that a clear definition was given to each interviewee in the main study. In other respects, they found the questions clear and understandable, though it was evident that their lack of prior experience and awareness made it difficult for them to identify specific problems and training needs. Rather, they expressed a generalised need for basic information and training in recognising and responding to individual differences.

An interesting feature of the interviews was the evidence that the interview process would not only provide information for the researcher but would provide information for interviewees and raise their awareness of SEN. For example, as indicated above, one interviewee said that until asked to participate in the pilot study, he had not known what SEN meant. As a result of his participation, he was beginning to perceive for the first time that learning difficulties did not reside solely within the child, but that the teacher needed to make special efforts to meet the needs of such a child. He also indicated that as a result, he was motivated to seek out reading matter on the subject. This experience confirmed the value of the present work and the usefulness of asking these questions in the main study.

Finally, concerning the in-service training of teachers who are prepared to work with children with SEN, it was felt that there was a need for higher quality of training at home and abroad and this meant that there was a need for new programmes to be designed. These programmes should

take into consideration new techniques and methods of teaching pupils with SEN. It should be borne in mind that teacher training should be of high quality and relevant to the basic school teacher's work. Facilities, financial and professional support should be provided for by the decision-making authorities at the Ministry of Education level.

Factual questions about the interviewees will be added to the interview questions in response to the supervisor's suggestion, in order to provide background information about them.

5.10 The Main Fieldwork

Following the pilot study and consequent amendments to the survey instruments, the English and Arabic versions of the questionnaire and interview schedules were administered to the ample groups of the main study.

In order to administer the questionnaire and interview schedule, the researcher travelled to Sudan on October 2008. A reflection on practical difficulties in researching Sudan is reviewed in order to draw a picture of what researchers may face when researching such a developing country.

5.10.1 Researching in Sudan Context

As most of third world countries, Sudan research tradition is relatively short in comparison to western and developed countries. In common, people are reluctant to participate in research, this results in problems of small samples that may not be representative. Problems of generalisation may thus occur.

Moreover, in Sudan, suspicion is always a high possibility and features a general problem on the part of the authorities and research populations. The authorities as a result of the current political and military situation in the country suspect all foreign persons and their activities. All foreigners regarded as spies to the USA and the West and research or academic activities under supervision or finance from foreign institutes are closely monitored in order to control leaking any information that could be considered as 'damaging' to the country's reputation and security. This situation created unjustified fear in the public when they are asked to participate in research. They fear from being held responsible of leaking such 'damaging' information to foreign

institutes and organisations. Also there was a fear from using the information collected to evaluate their competencies as will be discussed later in this section.

The direct impact of this suspicion on the current study was the problem of gaining approval to carry out the study and access to basic schools teachers which could have put the entire study at risk. This is why the role of insider researcher should have to be played. The researcher used Sudanese identity documents and used public transport and facilities to make people there feel secure about the aim of the research. Another reason for the adoption of the insider researcher approach was to utilize the relationship and contacts with teachers, academics, and other people that could facilitate the completion of data collection

To follow the formal procedure for permission, a fax was sent by my supervisor in 2006 explaining the purpose of the study to the Ministry of Higher Education in Sudan. This was expected to be enough to gain access to carry out the study, however, there was a lengthy two months wait before a clearance obtain was from the Department of Intelligence and National Security where an intensive examination of the study purpose, source of sponsorship, sort of information to be collected, questionnaire and interview questions, was made.

The intervention of two professors from Faculty of Education, University of Khartoum who explained the importance of the study and the great need for training of researchers in this field at international level has convinced the authorities to issue a conditional approval for the study. The conditions were to sign a confirmation not to use, or pass any information gathered to bodies that would use them to damage Sudan's international reputation, and to produce all the literature and information gathered to the Department before leaving the country. Thus, the conditions were accepted and the confirmation was signed by the researcher.

Thereafter, access was granted for exploratory, pilot and main studies. A formal approval letter was sent by Department of Intelligence and National Security to the Ministry of Higher Education which addressed the Ministry of General Education to explain the purpose of the study and ask permission to carry out the survey. Another letter was sent by the Authority of Education in Khartoum to head teachers of the selected schools in Khartoum, indicating the purpose of the study and the

importance of their co-operation for the success of the study. A formal letter was also issued by the Faculty of Education Khartoum University of Khartoum, in the form of permission to carry out interviews with teacher trainers in the Department of Special Educational Needs. All the letters were sent through internal channels. As expected, I was subjected to a thorough baggage and bodily search every time I arrived at or left the country. However, the assistance of a third party helped secure the delivery of data storage devices and questionnaires to the researcher in London.

Regarding the targeted population, the existence of widespread lack of understanding regarding research in the country has placed many difficulties on data collection where people are usually concerned when researchers attempt to interview them and report their responses. This has resulted in negative disposition of teachers to participate as discussed in the pilot study (see section 5.6), and has caused much anxiety before and during the stage of data collection.

However, a decision to seek headteachers' assistance and to train five graduates to help with personal attendance during the main study in order to encourage the participants and answer their questions has proven to be central on overcoming the problem of low response rates.

Despite this, headteachers and participant required a great deal of assurance that the study was not meant for schools inspection or to assess the teacher's competence and performance.

Every school was visited individually, and all information and justification for the study was discussed with headteachers and participants. This was time consuming, very tiring and including travelling long distances in very high temperatures.

Eventually, and as can be seen from the results, a very reasonable number of participant teachers was obtained for the study.

The specific administration procedures for each instrument were as follows:

5.11 The Questionnaire

5.11.1 Sample Selection

A cluster-sampling procedure was used to select respondents for the questionnaire survey. As in the pilot study, a list of primary schools in the Khartoum state, supplied by the eight district education authorities in Khartoum, was used as the sampling frame (for the rationale for concentrating on basic schools, given the characteristics of the Sudanese education system (see Chapter Two). Khartoum is the largest state in Sudan, with 283 basic mainstream schools and 5,351 basic mainstream school teachers (Khartoum District Education Authority, 2009) scattered over a very wide geographical area. Given the constraints of time and resources, it was not feasible to visit a large number of schools, especially as some are in remote locations. It was therefore decided to group the schools in the main three cities Khartoum, Omdurman and Khartoum North and to select fifteen schools from each city, and twenty from Omdurman, which is an exceptionally large and populous area. The sample was selected from the schools randomly. This was done by giving each school a number, shuffling these numbers, then drawing out the required sample. This process was carried out for each city separately. The resulting sample included thirty inner-urban schools and twenty at the state limits, in a modern suburb. Since the Khartoum Education District is predominantly urban, and since educational and other facilities in Sudan are heavily concentrated in the urban areas, such a sample can be considered representative of both the district and the Sudan, especially as all schools must, by law, follow the same curriculum (see Chapter Two).

Only three of the selected schools had a resource room programme in which children identified as having special educational needs were withdrawn from regular classes to receive one-to-one tuition with a specialist teacher. A further two schools each had a special class for children with SEN. These children were integrated with their peers for Art and Physical Education, and during recreation periods, but taught separately, by a specialist teacher, for all other subjects. The remaining schools had no specific SEN programmes. Thus, the surveyed schools can be considered to reflect the variety of situations with regard to inclusion of pupils with SEN, currently existing in Sudanese schools (see Chapter Two).

Questionnaires were distributed to teachers in each of the selected schools. When selecting teachers from each school, it was ensured that teachers of different teaching subjects and grade levels were represented in the sample. Moreover, in schools that practiced some form of inclusion, the few teachers who actually taught children with SEN would be included, as well as the majority who did not teach them regularly but may have referred such children for special help or had contacts with them while supervising recreation.

5.11.2 Data Collection

All questionnaires were delivered to respondents in the sample personally. The researcher asked every respondent to read the covering letter and answer the questions in the questionnaire. All questionnaires were collected personally. The researcher distributed 325 questionnaires, of which 301 were returned complete (132 female and 169 male teachers), as shown in table (Section.9).

Table 5.9
Questionnaire Response Rate (main study)

Education District	Distributed Questionnaires	Collected Questionnaires	
			%
1. Khartoum (Khartoum)	20	18	90
2. Kalakla (Khartoum)	20	19	95
3. Jabal Awliya (Khartoum)	35	33	94.3
4. Khartoum Bahri (Khartoum North)	35	33	94.3
5. Sharq Al-Neel (Khartoum North)	35	32	91
6. Omdurman (Omdurman)	55	49	89
7. Om Baddah (Omdurman)	65	60	92
8. Karari (Omdurman)	60	57	95
Total	325	301	

5.11.3 Reliability

As rigorous tests on the questionnaire reliability were carried out during the pilot study and the reliability values obtained had been acceptably high, it was considered not to make a further check on the reliability of the questionnaire in the main fieldwork as large sample size and limited time available did not allow the use of methods adopted in the pilot study.

5.12 Interviews

5.12.1 Sample Selection

Interviews were carried out with teachers and primary school supervisors in Khartoum, and teacher trainers in the Department of Special Educational Needs in Faculty in Education in University of Khartoum. Teachers interviewed were from those who had completed the questionnaire. They were selected from ten schools four from Omdurman and three from Khartoum and Khartoum North. Those teachers constituted a purposive sample drawn from those who, in response to a question at the end of the questionnaire, expressed willingness to participate. From these potential respondents, the researcher selected one or two teachers from each school to include a range of experience, both generally and in relation to SEN. Details of the characteristics of the interviewed teachers, in terms of their ages, experience and grade levels taught are presented in Chapter Seven. Given the nature of the school supervisors and teacher trainers as key informants, the limited number of people occupying these posts, and the demands of their official responsibilities (especially as the fieldwork cut across the examination period) these samples were selected purposively from those of the target populations who were willing to participate and could spare the time to do so. All the supervisors had responsibility for the Khartoum district education authority in which the fifty sampled schools were surveyed; one supervisor, in particular, supervised special education programmes for pupils with learning difficulties. Two of the sampled schools ran pilot programmes, which were under his supervision. Access to supervisors was obtained via the district education authority. The teacher trainer sample was confined to Khartoum University because this is, to date, the only institution in the Sudan that provides teacher training in relation to SEN (see Chapter Two). Such training, so far, is confined to students intending to teach in special institutions, special classes and resource room programmes. Training in relation to SEN is not currently part of pre-service training for mainstream teachers. All members of this sample lectured on SEN while some, additionally, were involved in course planning and/or administration. The

sample of interviewees included 20 teachers, 10 supervisors and 10 teacher trainers, as shown in the following table.

Table 5.10
Interview Sample

Sample category	Male	Female	Total
1, Teachers	9	11	20
2. Supervisors	7	3	10
3. Teacher trainers	6	4	10
Total	22	18	40

5.12.2 Interview Procedure

Interviews were conducted at respondents' work places by appointment. At the beginning of each interview, the researcher explained to the interviewee the aims of the interview. Then, the researcher informed the interviewee that all the information would be confidential and would be recorded and used only for the purpose of the present research. Questions were asked according to the interview schedule, the respondents being allowed to give a full and considered answer before moving on to the next question. Permission was obtained to tape record the discussion. The interviews were then recorded, transcribed and translated from Arabic to English.

5.12.3 Data Analysis Procedures

The questionnaire data were coded and input onto computer for analysis using the SPSS program. Teachers' background data were analysed descriptively using frequencies and percentages. For the sections on Competencies and Future Educational Opportunities, in addition to frequencies and percentages, mean scores were calculated for each item.

For each dimension of competencies/training needs, the overall mean score was calculated as the summation of means of the items divided by the number of items in each dimension. These mean scores were ranked in order to give a simple indicator of teachers' relative levels of agreement with

the competency statements and training need for the various dimensions. ANOVA was used to test for significant differences in responses from teachers of different age, qualification, experience, and type of school in terms of arrangement for inclusion of pupils with SEN. Although it is sometimes argued that parametric tests should only be used when the data are of the interval or ratio type, scores are normally distributed and variances are homogeneous, Bryman and Cramer (2001) note that the need to meet these criteria has been strongly questioned. They suggest, for instance, that parametric tests can be used with ordinal data, since tests apply to numbers and not what the numbers signify, and they note that in practice, parametric tests are routinely applied to the analysis of attitude scales. Moreover, they site evidence of the robustness of parametric tests to moderate violations of the assumptions of normal distribution and homogeneity of variances. In the present study, the data, though strictly ordinal, were of the Likert scale type that is often treated as interval; responses were reasonably normally distributed and the means and standard deviations of the various groups were similar. It was therefore considered acceptable to use a parametric test. Where ANOVA (Cohen, et al., 2007) revealed the existence of significant differences, it was followed up by Bonferroni's post hoc test to identify the location of such differences. When comparing teachers who had experience of teaching pupils with SEN, with those who did not, however, a parametric test (the t-test) was not appropriate, because the great difference in size between the two samples (7 teachers who had experience of teaching pupils with SEN, and 168 teachers who did not) is a serious violation of the conditions for the t-test (Kinnear and Gray, 1999). In this case, the equivalent non-parametric test, the Mann-Whitney (Cohen, et al., 2007) was selected.

In addition to tests of statistically significant difference, tests of correlation were carried out, in order to examine possible associations between mean scores on the competency items.

The interview information was analysed using content analysis. In so doing, an attempt was made to obtain both an idea of the number of people who responded in a particular way, and the richness of individual variations in experience and opinions.

5.13 Summary

The questionnaire and supervisors' interviews were piloted in Sudan using small samples similar to those targeted by the main fieldwork.

The questionnaire was translated into Arabic and minor amendments made before piloting in 50 schools in Khartoum. Five trained graduates helped in the questionnaire distribution and a considerable response rate was obtained. A number of changes were made to some items in the Attitudes section, to eliminate redundancy and facilitate the coding and analysis of responses. Regarding administration, it was decided in the main study to have the questionnaires distributed personally by the researcher and assistants, rather than through headteachers, in the hope of improving response rate and removing a possible threat to reliability.

Semi-structured interviews were held with three supervisors. The outcome suggested that the interview schedule is understandable and relevant to the target group. Some changes were, however, made to increase the precision and value of the information that could be obtained.

Following these changes, the main fieldwork was carried out in Khartoum. Complete responses were received from 301 teachers from 50 primary schools for the questionnaire survey, while 20 teachers, 10 supervisors and 10 teacher trainers were interviewed. The results are presented in the next chapter.

Chapter Six

Data Analysis

Results of Survey and Interviews

Results of Survey and Interviews

6.1 Introduction

Section 5.10 of Chapter Five discussed the questionnaire and interview schedules administration to the sample groups of the main study in order to collect the data required to answer the research questions.

This chapter presents the findings from the questionnaire survey, responses obtained in interviews carried out to collect data from educational supervisors, teacher trainers and basic school teachers who currently teach or may in the future teach pupils with SEN.

The chapter is divided into two main parts. The first is concerned with the questionnaire data. Information is analysed using a variety of statistical test to provide inferential statistics. Results are presented on the surveyed teachers' demographic characteristics, and on their experience and training in relation to SEN. Their perceptions of their competencies and training needs are described and analysed in relation to their background characteristics. Finally, the preferences expressed by teachers in relation to future training opportunities are reported and discussed.

In the second part of the chapter, the qualitative data obtained from the interviews are presented for each group and discussed.

6.2 The Questionnaire Survey

As indicated in Chapter Five, the questionnaire contained four sections. For convenience in this chapter, however, the results are presented in three sections, beginning with the background and training data combined, to present a composite portrait of the survey sample.

6.2.1 Teachers Background Data

This section presents information on the survey respondents' ages, teaching experience, qualifications, grades taught, experience and support in teaching pupils with SEN, and training received in relation to SEN.

Table 6.1 shows the distribution of the sample by age.

Table 6.1
Distribution of the respondents by age

Age	No. of Teachers	%
Under 30	48	16
30 - 39	141	46.8
40 - 49	89	29.6
50 and over	23	7.6
Total	301	100.00

It can be seen that almost half the teachers were in the 30-39 age group and more than a quarter were aged 40-49. The smaller number in the youngest (<30) age group is to be expected, since Sudanese teachers graduate from university or college at age 22 or older. The low representation in the 50+ age group is also unsurprising, because teachers of this age are likely to have qualified at a time when there were far fewer teacher training institutions in Sudan, and fewer teachers trained, than in later years. Moreover, those experienced teachers prefer to go for work in the Gulf countries or at local private schools where they get higher salaries compared to government salaries. Also, there will have been losses to the profession from early retirement.

Table 6.2
Distribution of the respondents by years of teaching experience

Experience in teaching	No. of Teachers	%
Less than 5 years	26	8.6
5 to less than 10 years	76	25.3
More than 10 years	199	66.1
Total	301	100.0

The table shows that survey respondents were, for the most part, experienced teachers, two-thirds of whom had taught for over 10 years. Thus, they will have trained before Sudan was influenced by the trend towards inclusion of pupils with SEN. At the same time, they will have had ample opportunity to gain practical in-service experience of developments in the classroom.

The various teaching qualifications attained by the respondents are shown in Table 6.3.

Table 6.3
Distribution of respondents by qualification

Qualification	N	%
Bachelor in Basic Education	69	23
Bachelor in Education	38	12.6
Post-graduate Diploma in Education (2 years)	9	3
Post-graduate Diploma in Teaching (1 year)	114	37.9
Bachelor in Special Education	0	0
Diploma of Intermediate Teachers Training Institutes	36	12
Diploma in Special Education	3	0.9
Bachelor Degree (non-education)	22	7.3
Secondary School Diploma in Education	10	3.3
Total	301	100.0

The table indicates that more than three-quarters of the respondents had a graduate-level or post-graduate teaching qualification in education. As expected, there were also some older teachers who had entered the profession with lower-level qualifications under the old Intermediate Teachers Training Institutes or earlier systems (see Chapter One). Only 3 teachers had a postgraduate qualification specifically related to SEN while no one with undergraduate degree in SEN as this BA programme has just started at the University of Khartoum this year 2009/2010. Other 22 respondents did not have a specific teaching qualification of any kind. The year(s) grade level(s) taught by the sample are indicated in Table 6.4.

Table 6.4
Grade levels taught

Grade	No. of Teachers*	Percentage*
1	200	66.4
2	101	33.6
Total	301	100

Note: Frequencies and percentages total more than 301 (100%), as some teachers taught at more than one level.

Grade one is years 1 to five while Grade 2 is years 6 to 8. The table shows that the two basic school grades were well represented in the samples, reflecting the high response rate from all levels of the participating schools. The table was compiled on a multiple response basis; the detailed returns showed that about half the teachers taught a single grade, while 43 taught two grades.

Table 6.5 shows that only 12 respondents (4%) had experience of teaching pupils with SEN. All of these had taught pupils with SEN in ordinary classes within mainstream schools. In addition, 6 had done so in special schools and 5 in special classes within mainstream schools, as indicated in Table 6.5.

Table 6.5
Experience of teaching pupils with SEN

No.	In Special Schools	Special Classes within Mainstream Schools	In Ordinary Classes within Mainstream Schools	Total
1	1 year, 2 months	9 months	9 months	2 years, 8 months
2	1 year	1 year	1 year	3 years
3	6 years	0	7 years, 7 months	13 years, 7 months
4	10 years	2 years	2 years	14 years
5	2 years	1 year	3 years	6 years
6	2 months	6 months	6 months	1 year, 2months
7	0	0	1 year	1 year

The small numbers of teachers reporting experience of SEN pupils can be attributed to the situation described in Chapter One, and in Chapter Four, whereby, even in schools which operate some level of inclusion, pupils with SEN are not normally taught in mainstream classes. The only teachers who teach these children are the teachers (brought in from special schools) responsible for resource room programmes and special classes, or teachers of art and physical education, in which some schools are beginning to hold integrated lessons.

As the table shows, these teachers' cumulative experience of teaching pupils with SEN in various contexts ranged from 1-14 years.

Teachers were asked for their perceptions of the support available to them from outside agencies, the school administration and parents. Their responses were as shown in Table 6.6.

Table 6.6

Sources of perceived support for teaching for pupils with SEN

Source	Yes		To a limited extent		No		Total
	N	%	N	%	N	%	
Agencies	5	1.7	4	1.3	292	79	301
Schools	25	8.4	11	3.6	265	88	301
Parents	3	1	5	1.7	293	97.3	301

It can be seen from the table that a vast majority of the teachers were of the opinion that no support was available from any source. The main source of support in the view of these teachers was perceived to be the school administration; however, it was low as can be seen from the table that only 12% perceive full or limited support.

As indicated earlier in relation to teacher qualifications, only 3 teachers, had a specific SEN qualification, and very few others reported any kind of pre-service training in relation to SEN. The frequency and types of pre-service training reported are shown in Tables 6.7 (a) and (b).

Table 6.7

Pre-service training in SEN

(a) Number of respondents reporting training

Pre-service Training	Number	Percentage
Yes	6	2
No	295	98
Total	301	100%

(b) Types of pre-service training

Number of Teachers	Course Title	Training Period	Hours per Week
1	Recreation for Disabled	1 semester	2
2	Preparing Teachers of Special Education	1 year	2
0	Special Education	4 years	0
1	Special Education (Responsibilities, Techniques and Teaching Methods)	4 weeks	3
1	Sport for Disabled	3 months	3
1	Learning SEN	1 week	12
1	Education for children with Mental SEN	4 years	0
5	Special Education	1 semester	2

It can be seen that training varied greatly in duration. The teachers with specific SEN qualifications had done a 1-year post-graduate course. The other teachers who reported some pre-service training in SEN reported short courses lasting, at most, one semester. Even fewer teachers (2%) had attended in-service training related to SEN.

Table 6.8**In-service training in SEN****(a) Number of respondents reporting training**

In-service Training	Number	Percentage
Yes	6	2
No	295	98
Total	301	100

Details of the courses they reported are shown in Table 6.8b.

(b) Training Courses and Duration

No.	Training Course	Kind of Training	Training Period
1	Special Education	Academic Study	One semester
1	A. Preparing Lessons for Pupils with SEN.	Seminar	One day
5	B. Teaching Methods for Pupils with SEN.	Workshop	One day
2	A. Resource Room for Pupils with SEN.	Lectures and workshops	Two months
3	B. Teaching Techniques for Pupils with SEN.	Lectures and workshops	Two months

It can be seen that in-service training consisted largely of workshops, and could be as little as one day's duration.

6.2.2. Teacher Competencies and Training Needs

The main part of the teacher questionnaire asked teachers to respond on a Likert-type scale to rate their ability in relation to 10 competency dimensions, and to indicate their wish/desire for training in relation to each item. It is worth noting that although the questionnaire provided an opportunity for teachers to make additional comments on each dimension if they so wished, none of them availed themselves of this provision. This may have been due to a number of reasons: the length of the questionnaire, teachers' unfamiliarity with survey research, and their lack of experience with SEN. It is worth noting that Oppenheim (2000) argues that open questions in questionnaires tend to do poorly. This section, therefore, presents quantitative findings only. First, an overview is presented of teachers' responses to the 10 dimensions as a whole. Then, responses to individual items within each dimension are considered in more detail. Finally, discussion is presented of the relationship between teachers' background characteristics and their responses on competencies and training needs.

6.2.2.1. General Overview

Teachers' mean scores for the 10 competency dimensions are shown in Table 6.9 together with rankings produced by the researcher based on the size of the mean, from 1 for the dimension with the highest score to 10 for the dimension with the lowest score. It can be seen that for competencies, mean scores range from 2.56 for curriculum adaptation, to 3.93 for personal skills. For attitudes, planning, curriculum adaptation and instructional competencies, the mean scores were between 2 and 3, equivalent to "disagree", and "not sure". Thus, teachers' perceptions as to whether they possessed the competencies concerned were somewhat negative; they clearly lacked confidence in these areas. Indeed, only for one competency dimension, personal skills, did the mean score fall close to 4, the point on the Likert scale denoting agreement. Teachers were, thus, more confident of having the personal skills to teach children with SEN, than they were of any of the other knowledge, attitude and skill dimensions. Curriculum adaptation was the skill in which they felt least competent, which is not surprising, since the centralised, highly structured national curriculum gives teachers no margin of freedom in this respect.

Table 6.9 shows descriptive statistics for each dimension of competencies and training needs.

Table 6.9

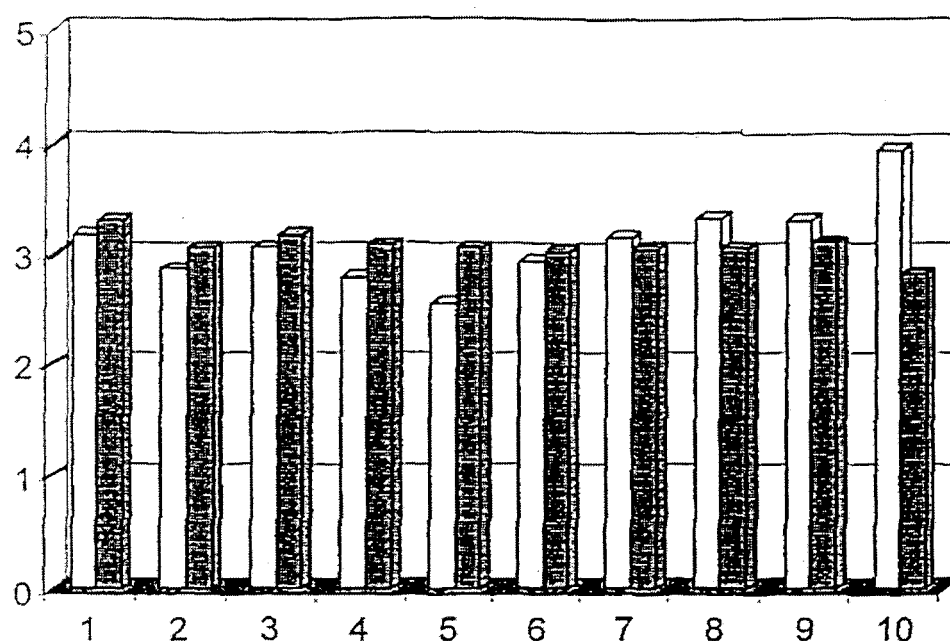
Means and ranks for competencies, needed for perceived competence and training needs

No.	Dimensions	Competencies		Training Needs	
		Mean	Rank	Mean	Rank
1	Knowledge	3.16	5	3.29	1
2	Attitudes	2.86	8	3.07	7
3	Assessment, evaluation and recording	3.05	6	3.16	2
4	Planning, Organisation and Management of Instruction	2.78	9	3.08	4
5	Curriculum Adaptation	2.56	10	3.05	6
6	Instructional Competencies	2.93	7	3.02	9
7	Management of Behaviour	3.24	4	3.04	8
8	Use of Resources (Materials and Human)	3.31	2	3.05	5
9	Counselling, Communication and Collaboration	3.30	3	3.09	3
10	Personal Skills	3.93	1	2.82	10

Regarding teachers' expression of training needs, the mean scores ranged from 2.82, for personal skills, to 3.29 for knowledge. In other words, teachers' rating of their need for training in regard to personal skills, fell between "do not need" and "not sure", but their opinions for all other dimensions fell between "not sure" and "do need". Although the mean scores were close for all dimensions, the areas in which teachers perceived greatest need for training in terms of the rank ordering of items were not necessarily those in which they expressed least confidence in their competencies. The dimensions ranked 7, 8, 9 and 10 in terms of teachers' perceptions of their competence were ranked 9, 7, 4 and 6 respectively, in terms of their training needs. This suggests that, even for the competencies in which teachers felt weakest, they were not necessarily more desirous of training. Table 6.9 shows that they expressed most need for training regarding knowledge and assessment, and were less desirous of training related to the management of behaviour, instructional competencies and personal skills. This may reflect a general lack of awareness of the importance of these competencies in teaching children with SEN, or may be related to a general lack of expectation in the education system as a whole that such adjustments need to be made by individual teachers. Figure 6.1 shows comparison between Competencies needed by teacher and Training Needs.

Figure 6.1

Comparison between Competencies needed by teacher and Training Needs



Key:

□ Competencies

■ Training Needs

No.	Dimensions
1	Knowledge
2	Attitudes
3	Assessment, evaluation and recording
4	Planning, Organisation and Management of Instruction
5	Curriculum Adaptation
6	Instructional Competencies
7	Management of Behaviour
8	Use of Resources (Materials and Human)
9	Counselling, Communication and Collaboration
10	Personal Skills

6.2.2.2. Specific Competency Dimensions

In this section, a more detailed analysis is presented for each dimension in turn. In each case, the author will comment, first, on Agreement with the competency statements, which reflects teachers' perceived competencies on the items in the dimension. Points made on the pattern of responses will be supported with comments on the ranking of the means for the items within the dimension. Comments will then be made on the response pattern and ranking of items for Training Needs. The findings for perceived competence and training need will then be compared.

Knowledge dimension

Table 6.10 shows the responses for the Knowledge dimension. There was a wide spread of responses for each item. It can be seen that, regarding Agreement, teachers were most confident of question 4, their awareness of their ethical responsibilities. More than half the teachers agreed with the question and a further 18% strongly agreed. This was the question on which fewest teachers expressed disagreement or uncertainty. These responses led to this question being given the highest ranking of the items in this dimension. Teachers were less confident of their knowledge in relation to legislation and policy (question 3), and theories of learning (question 2). More than a third of the teachers answered "Disagree" to each of these questions and, in the case of question 3, almost a quarter expressed strong disagreements. As regards training need, teachers expressed greatest need for training in relation to learning theories and their application (110 or 62.8% answered Need or Strongly Need for question 2), and least in relation to ethical responsibilities, although here, too, a majority expressed some level of need for training. Comparing the Agreement and Training Needs scores, it can be seen that question 4, which had the highest mean for Agreement, denoting the highest level of perceived competence, was the item which had the lowest score for Training Need.

Table 6.10

Responses for Competencies in the Knowledge Dimension

a) Agreement

	question 1		question 2		question 3		question 4	
		%	N	%	N	%	N	%
1. Strongly Disagree	21	7	34	11.3	69	22.9	9	3
2. Disagree	64	21.2	112	37.2	112	37.2	31	10.3
3. I am not sure	31	10.3	39	13	29	9.6	18	6
4. Agree	154	51.2	98	32.6	82	27.4	158	52.4
5. Strongly Agree	31	10.3	18	5.9	9	2.9	85	28.3
Total	301	100	301	100	301	100	301	100
Mean	3.37		2.84		2.50		3.93	
Rank within Dimension	2		3		4		1	

b) Training Needs

	question 1		question 2		question 3		question 4	
		%	N	%	N	%	N	%
1. I do not need at all	32	10.6	29	9.6	34	11.3	41	13.6
2. I do not need	57	19	52	17.3	51	16.9	60	19.9
3. I am not sure	27	9	31	10.3	34	11.3	27	9
4. I do need	165	54.8	150	49.8	149	49.6	137	45.5
5. I strongly need	20	6.6	39	13	33	10.9	36	12
Total	301	100	301	100	301	100	301	100
Mean	3.27		3.39		3.30		3.21	
Rank within Dimension	3		1		2		4	

Attitude dimension

Table 6.11 shows teachers' responses to the Attitude competencies. It can be seen that teachers acknowledged the value and importance of working with pupils who have SEN (questions 6 and 7 where almost half the teachers answered "Agree"), but many felt it was not straightforward (question 8), were uncomfortable about it (question 5), and were doubtful whether such pupils should be included in the mainstream class (question 5), as shown by the high levels of "Disagree" responses.

It is particularly noticeable that question 5 on inclusion in mainstream classes, and question 6 on teachers' own preference for working with pupils with SEN, received the highest numbers of "Strongly Disagree" responses, around a quarter of the sample in each case. Large numbers of teachers answered "Do not need" to the questions in this dimension, although responses to questions 5, 6, 7 and 8 indicated the perceived need/wish of about half the teachers, in each case, to receive training in relation to this dimension.

It is interesting to note that the competencies ranked in first and second positions in terms of their mean scores for Agreement (questions 7 and 8) were similarly ranked for Training Needs. In other words, teachers expressed an attitude that it is important to and worthwhile to teach pupils with SEN and they also perceived more need for training in these than other competencies. This suggests that they attached more importance to these competencies than to others in the dimension.

Table 6.11

Responses for Competencies in the Attitude Dimension

a) Agreement

	question 5		question 6		question 7		question 8	
	N	%	N	%	N	%	N	%
1. Strongly Disagree	51	16.9	26	8.6	29	9.6	44	14.6
2. Disagree	117	38.9	38	12.6	33	11	136	45.2
3. I am not sure	48	16	27	09	28	9.3	55	18.3
4. Agree	72	23.9	150	49.8	135	44.9	57	18.9
5. Strongly Agree	13	4.3	60	20	76	25.2	9	3
Total	301	100	301	100	301	100	301	100
Mean	2.59		3.12		3.23		2.50	
Rank within Dimension	3		2		1		4	

b) Training Needs

	question 5		question 6		question 7		question 8	
	N	%	N	%	N	%	N	%
1. Do not need at all	40	13.3	24	8.0	25	8.3	32	10.6
2. I do not need	93	30.8	77	25.6	70	23.3	62	20.6
3. I am not Sure	55	18.3	39	12.9	46	15.3	45	14.9
4. I do need	80	26.6	124	41.2	114	37.8	129	42.9
5. I strongly need	33	11	37	12.3	46	15.3	33	11
Total	301	100	301	100	301	100	301	100
Mean	2.83		3.13		3.19		3.12	
Rank within Dimension	4		2		1		3	

Assessment, Evaluation and Recording Dimension

Teachers' perceptions of their competencies and training needs in relation to Assessment, Evaluation and Recording are shown in Table 6.12. It can be seen that in the Agreement responses, there were comparatively high levels of not sure responses in relation to each of these competencies and a particularly high level of disagreement with question 11 on evaluating academic performance in the light of goals and objectives, leading to its being ranked lowest in the dimension. The highest level of agreement was for constructing a pupil profile (question 9), for which 42.9% of teachers answered "Agree" and a further 4%, "Strongly Agree", giving this item the second highest ranking in the dimension in terms of mean score.

As regards training needs, teachers' main concern was to be able to identify potential SEN (question 10). There was a relatively high level of uncertainty about perceived training needs in respect of question 11, evaluation of performance, in relation to objectives (16%), while question 12, ability to fairly and accurately assess the progress of all pupils, including those with SEN was the item which received the highest proportion of "Do not need" and "Do not need at all" responses. This may reflect the second ranking of this question in terms of perceived competencies.

Comparison shows no clear relationship between the rankings for Agreement and Training Need. In some cases, e.g. items 9 and 10, teachers perceived higher training needs in areas where they perceived their competencies as lower. On the other hand, question 11, which was ranked lowest on perceptions of competence, was also ranked low as a training need.

Table 6.12

Responses for Competencies in the Assessment Dimension

a) Agreement

	question 9		question 10		question 11		question 12	
	N	%	N	%	N	%	N	%
1. Strongly Disagree	26	8.6	31	10.3	34	11.3	28	9.3
2. Disagree	91	30.2	80	26.6	94	31.2	70	23.3
3. I am not sure	43	14.3	62	20.6	59	19.6	44	14.6
4. Agree	128	42.6	115	38.2	103	34.2	141	46.8
5. Strongly Agree	13	4.3	13	4.3	11	3.7	18	6
Total	301	100	301	100	301	100	301	100
Mean	3.08		3.06		2.87		3.18	
Rank	2		3		4		1	

b) Training Needs

	question 9		question 10		question 11		question 12	
	N	%	N	%	N	%	N	%
1. I do not need at all	28	9.3	22	07.3	29	9.6	29	9.6
2. I do not need	75	24.9	84	27.9	74	24.6	86	28.6
3. I am not sure	48	15.9	31	10.3	37	12.3	41	13.6
4. I do need	131	43.6	136	45.2	129	42.9	119	39.6
5. I strongly need	19	6.3	28	9.3	32	10.6	26	8.6
Total	301	100	301	100	301	100	301	100
Mean	3.21		3.19		3.13		3.09	
Rank	1		2		3		4	

Planning, Organisation and Management of Instruction dimension

Responses to items in Planning, Organisation and Management of Instruction are shown in Table 6.13. The highest frequency of agree responses was for question 15, ability to organise the classroom to

facilitate instruction of all pupils, where 42.3% answered "Agree" and 6.3% answered "Strongly Agree", giving this the highest ranking among items in the dimension. For all the other items, the proportion of "Agree" responses was low, in most cases around only a quarter of the respondents (question 13). Setting up appropriate educational goals (question 13) and organising a flexible programme of instruction for pupils with SEN (question 14) elicited high levels of "Disagree" and "Strongly Disagree" responses around half of the respondents; these skills were ranked lowest within the dimension.

Teachers' perceptions of their competencies were generally reflected in their expressions of training need; question 14 was the one which they expressed least training need (42.2%), while question 13 is the one for which they expressed most training need; this item received the highest numbers of both "Need" and "Strongly Need" responses (47.9%). Interestingly, these two items were ranked the lowest in the competencies dimension however; question 14 scored the highest level of training need in the dimension.

Table 6.13

Responses for Planning/ Organisation/Management of Instruction

a) Agreement

	question 13		Question 14		question 15		question 16	
	N	%	N	%	N	%	N	%
1. Strongly Disagree	40	13.3	41	13.6	29	9.6	31	10.3
2. Disagree	110	36.5	112	37.2	69	22.9	80	26.6
3. I am not sure	51	16.9	57	18.9	57	18.9	71	23.6
4. Agree	89	29.6	77	25.6	127	42.3	103	34.2
5. Strongly Agree	11	3.7	14	4.7	19	6.3	16	5.3
Total	301	100	301	100	301	100	301	100
Mean	2.72		2.70		3.01		2.67	
Rank within Dimension	3		4		1		2	

b) Training Needs

	question 13		Question 14		question 15		question 16	
		%	N	%	N	%	N	%
1. I do not need at all	25	8.3	31	10.3	33	11.0	26	8.6
2. I do not need	100	33.2	84	27.9	93	30.9	93	30.9
3. I am not sure	32	10.6	40	13.3	48	15.9	50	16.6
4. I do need	120	39.9	115	38.2	113	37.5	101	33.6
5. I strongly need	24	8.0	31	10.3	14	4.7	31	10.3
Total	301	100	301	100	301	100	301	100
Mean	3.09		3.10		2.97		3.16	
Rank within Dimension	2		1		4		3	

Curriculum adaptation dimension

Only two questions in the questionnaire related to Curriculum Adaptation (see Table 6.14). The majority of teachers did not think they had competence in these areas, and the majority but fewer of them expressed a need or wish for training, suggesting that some did not regard this area as a high priority for training.

Table 6.14

Responses for the Curriculum Adaptation Dimension

a) Agreement

	question 17		question 18	
	N	%	N	%
1. Strongly Disagree	40	13.3	25	14.3
2. Disagree	127	42.2	84	48.0
3. I am not sure	45	14.9	33	18.9
4. Agree	77	25.6	26	14.9
5. Strongly Agree	12	4.0	7	4.0
Total	301	100	301	100
Mean	2.65		2.46	
Rank	1		2	

b) Training Needs

	question 17		question 18	
	N	5	N	%
1. Do not need at all	38	12.6	39	13.0
2. I do not need	96	31.9	72	23.9
3. I am not sure	33	11.0	40	13.3
4. Agree	103	34.2	114	37.9
5. Strongly agree	31	10.3	36	11.9
Total	301	100	301	100
Mean	2.98		3.11	
Rank	2		1	

Instructional Competencies dimension

Table 6.15 shows teachers' responses to the items related to instructional competencies. The highest number of responses (52.8% in total) was with question 20, denoting the ability to analyse the concepts for the topic being taught. In contrast, only 20.6% agreed or strongly agreed that they could develop an appropriate instructional sequence based on analysis of tasks and competencies (question 21).

For training needs, the highest frequency of "need" and "strongly need" responses was for question 21, referring to the ability to perform an analysis of the instructional steps for the tasks taught to pupils; this item ranked highest in the dimension in terms of the size of mean score, even though it was one in which teachers perceived their competence as high. Teachers rated lowest their competence in developing an appropriate instructional sequence based on task analysis, yet this was the question that ranked lowest as a training need.

Table 6.15
Responses for the Instructional Competencies Dimension

a) Agreement

	question 19		question 20		question 21		question 22	
	N	%	N	%	N	%	N	%
1. Strongly Disagree	24	7.9	15	5.0	39	13.0	33	11.0
2. Disagree	81	27.0	65	21.6	143	47.5	99	32.9
3. I am not sure	60	19.9	62	20.6	57	18.9	48	15.9
4. Agree	124	41.2	146	48.5	55	18.3	101	33.6
5. Strongly Agree	12	4.0	13	4.3	7	2.3	20	6.6
Total	301	100	301	100	301	100	301	100
Mean	3.06		3.25		2.49		2.91	
Rank	2		1		4		3	

b) Training Needs

	question 19		question 20		question 21		question 22	
	N	%	N	%	N	%	N	%
1. I do not need at all	22	7.3	15	5.0	29	9.6	34	11.3
2. I do not need	95	31.6	105	34.9	95	31.6	89	29.6
3. I am not sure	31	10.3	55	18.3	48	15.9	41	13.6
4. I do need	132	43.9	113	37.7	112	37.2	117	38.9
5. I strongly need	21	6.9	13	4.3	17	5.7	20	6.6
Total	301	100	301	100	301	100	301	100
Mean	3.11		3.01		2.98		2.99	
Rank	1		2		4		3	

Behaviour Management Dimension

The questionnaire outcomes in relation to behaviour management are summarised in Table 6.16. It can be seen that teachers were most confident of their ability to attract pupils' attention (question 23, where 76.1% expressed some level of agreement) and least confident of their ability to promote the social inclusion of pupils with SEN (question 26). For each of the items, almost half the teachers expressed a need/wish for training. For this dimension, the ranking of items resulting from mean scores for training needs is exactly the reverse of that for competencies. In other words, there is a clear relationship between teachers' perception of themselves as having or not having the indicated behaviour management competencies, and their expressed desire for training.

Table 6.16
Responses for the Behaviour Management Dimension

a) Agreement

	question 23		question 24		question 25		question 26	
	N	%	N	%	N	%	N	%
1. Strongly Disagree	12	4.0	15	5.0	17	5.6	41	13.6
2. Disagree	32	10.6	48	16.0	82	27.3	117	38.9
3. I am not sure	28	9.3	69	22.9	39	13.0	55	18.3
4. Agree	186	61.8	160	53.2	136	45.2	76	25.2
5. Strongly Agree	43	14.3	9	2.9	27	8.9	112	4.0
Total	301	100	301	100	301	100	301	100
Mean	3.71		3.33		3.23		2.67	
Rank	1		2		3		4	

b) Training Needs

	question 23		question 24		question 25		question 26	
	N	%	N	%	N	%	N	%
1. I do not need at all	26	8.6	22	7.3	28	9.3	29	9.6
2. I do not need	110	36.5	91	30.2	91	30.2	81	26.9
3. I am not sure	28	9.3	59	19.6	41	13.6	41	13.6
4. I do need	125	41.6	117	38.9	122	40.5	124	41.3
5. I strongly need	12	4.0	7	4.0	19	6.4	26	8.6
Total	301	100	301	100	301	100	301	100
Mean	2.96		3.02		3.05		3.12	
Rank	4		3		2		1	

Use of Resources dimension

Table 6.17 concerns the questionnaire items related to use of resources. There was a particularly high level of agreement for question 28, regarding the importance of involving parents or guardians as partners in instructional efforts; 34.3% answered "Strongly Agree" and 50.3% answered "Agree". This was the only item in the whole questionnaire for which the mean competency score was higher than 4. Teachers were much less sure of their ability to access community resources related to SEN (question 27). Almost half the teachers expressed interest in training in relation to each of the competencies in this dimension. In relation to question 28 this suggests that teachers agreed that it is important to involve parents, and some felt they needed further training to do so in practice.

Table 6.17**Responses for the Use of Resources Dimension****a) Agreement**

	question 27		question 28	
	N	%	N	%
1. Strongly Disagree	39	12.9	12	4.0
2. Disagree	139	46.2	16	5.3
3. I am not sure	45	14.9	19	6.3
4. Agree	70	23.3	151	50.1
5. Strongly Agree	8	2.7	103	34.3
Total	301	100	301	100
Mean	2.55		4.06	
Rank	2		1	

b) Training Needs

	Question 27		Question 28	
	N	%	N	%
1. I do not need at all	31	10.3	24	8.0
2. I do not need	96	31.9	115	38.2
3. I am not sure	34	11.3	17	5.6
4. I do need	115	38.2	103	34.2
5. I strongly need	25	8.3	42	14.0
Total	301	100	301	100
Mean	3.02		3.07	
Rank	2		1	

Counselling, Communication and Collaboration dimension

As shown in Table 6.18, regarding the competencies of Counselling, Communication and Collaboration, the highest numbers of Agree and Strongly Agree responses were for competence in communication with parents (question 31); the lowest were for communication with colleagues (question 29), which had the lowest competence ranking. Fewer than half perceived a clear need for training in communication with colleagues regarding pupils with SEN; perhaps some teachers did not see it as necessary, because very few of them actually taught pupils with SEN at the time of the research. The greatest training need was expressed in relation to communication with other professionals (question 30). Comparing the responses for agreement and training need, it can be seen that teachers expressed least training need in the area in which they felt most confident of their competence, namely, advising parents, (question 31) while the area in which they indicated most training need was one which ranked low within the dimension in terms of agreement with the competency statements, that of communication with professionals.

Table 6.18

Responses for the Counselling/Communication/ Collaboration Dimension

a) Agreement

	question 29		question 30		question 31		question 32	
	N	%	N	%	N	%	N	%
1. Strongly Agree	39	13.0	21	7.0	12	4.0	24	8.0
2. Disagree	110	36.5	81	26.9	31	10.3	62	20.6
3. I am not sure	41	13.6	38	12.6	34	11.3	60	19.9
4. Agree	98	32.6	129	42.9	170	56.5	124	41.2
5. Strongly Agree	13	4.3	32	10.6	54	17.9	31	10.3
Total	301	100	301	100	301	100	301	100
Mean	2.98		3.24		3.74		3.25	
Rank	4		3		1		2	

b) Training Needs

	question 29		question 30		question 31		question 32	
	N	%	N	%	N	%	N	%
1. I do not need at all	27	9.0	28	9.3	31	10.3	22	7.3
2. I do not need	86	28.6	84	27.9	107	35.5	100	33.2
3. I am not sure	41	13.6	29	9.6	33	11.0	38	12.6
4. I do need	122	40.5	131	43.6	96	31.9	105	34.9
5. I strongly need	25	8.3	29	9.6	34	11.3	36	12.0
Total	301	100	301	100	301	100	301	100
Mean	3.10		3.15		2.99		3.11	
Rank	4		3		1		2	

Personal Skills dimension

The last dimension of the competency section of the questionnaire concerned teachers' personal skills (Table 6.19). The competencies in this dimension obtained the highest levels of "Strongly Agree" responses on the questionnaire, the highest number of "strongly agree" responses being for item 35, the ability to be flexible and willing to learn from experience. The large number of teachers agreeing with this competency statement resulted in the item being ranked highest in the dimension in terms of mean score. The high level of positive responses for all three questions suggests that most teachers perceived themselves as having these competencies. The responses for training needs indicate that many teachers felt training was unnecessary in these areas; the highest level of "do not need" responses was for question 33, concerning self-confidence and maturity; in terms of mean score, this question was ranked lowest within the dimension.

Table 6.19**Responses for the Personal Skills Dimension****a) Agreement**

	question 33		question 34		question 35	
	N	%	N	%	N	%
1. Strongly Disagree	14	4.7	14	4.7	12	3.9
2. Disagree	12	3.9	12	3.9	21	7.0
3. I am not sure	28	9.3	22	7.4	23	7.6
4. Agree	186	61.8	184	61.1	160	53.2
5. Strongly Agree	61	20.3	69	22.9	85	28.3
Total	301	100	301	100	301	100
Mean	3.90		3.94		3.95	
Rank	3		2		1	

b) Training Needs

	question 33		question 34		question 35	
	N	%	N	%	N	%
1. I do not need at all	53	17.6	46	15.3	43	14.3
2. I do not need	113	37.6	108	35.9	98	32.6
3. I am not sure	21	7.0	28	9.3	26	8.6
4. I do need	91	30.2	96	31.9	100	33.2
5. I strongly need	23	7.6	23	7.6	34	11.3
Total	301	100	301	100	301	100
Mean	2.72		2.80		2.95	
Rank	3		2		1	

7.2.2.3. Relationship between Competencies and Other Characteristics

In addition to the descriptive statistics, correlation coefficients were calculated to see if teachers' perceptions of their competencies and of their training needs were significantly related. The outcome is shown in Table 6.20.

Table 6.20

Pearson Correlation coefficients between teachers' perceptions of their competencies and their corresponding training needs

No.	Competencies	Correlation coefficients
1	Knowledge	0.259**
2	Attitudes	0.466**
3	Assessment, Evaluation and Recording	0.304**
4	Planning, Organisation and Management of Instruction	0.220**
5	Curriculum Adaptation	0.320**
6	Instructional Competencies	0.301**
7	Management of Behaviour	0.237**
8	Use of Resources (Materials and Human)	0.367**
9	Counselling Communication and Collaboration	0.221**
10	Personal Skills	0.016

** Significant at 0.01

The table shows that for all except one of the competency dimensions, scores for perceptions of competence were significantly ($p < 0.01$) correlated with those for perceptions of the need/wish for training. The exception was Personal Skills. The lack of a significant correlation in this respect may have arisen because this was the dimension in which teachers expressed least need for training. Although the majority of correlations were significant, however, the values are not large. The highest was for Attitude (0.466) this indicates that the more positive attitudes teachers have towards inclusion of children with SEN, the more training in this area is perceived to be needed by them.

Thus, although the 0.01 significance level gives us a high degree of confidence that these correlations are not attributable to chance, it appears that teachers' perceptions of their competencies were not strongly reflected in their interest in training.

Statistical tests were also carried out to see if there were any significant differences in teachers' knowledge, skills and attitudes, in relation to their personal or professional characteristics: age,

teaching experience, qualification, experience of teaching pupils with SEN, and type of inclusion provision (if any) in their school. ANOVA was used for tests relating to age, teaching experience, qualification, and type of school, where there were three or more groups, while the Mann-Whitney test was used to compare the perceived competencies of teachers who had experience of teaching pupils with SEN ($n = 12$) and those who did not ($n = 289$), as explained in the methodology (Chapter Five).

Age means and standard deviations of teachers' scores are shown by age group, in Table 6.21. It is noticeable that for all dimensions except Counselling, the under 30's age group had the highest competency (level of agreement) scores. In the Counselling dimension, the over 50 age group had the highest mean score. For training needs, the youngest and oldest age groups tended to be lower than the 30-39 and 40-49 age groups. These differences, however, did not reach the level of statistical significance, as can be seen from Table 6.22. As that table shows, the only statistically significant difference in scores between the age groups was in the Use of Resources dimension, for competencies. A Bonferroni post hoc test was carried out to locate the difference. The outcome is shown in Table 6.23. It can be seen that the significant difference is between the under 30's and the over 50's age groups. The youngest teachers have greater confidence in their competencies in this area. This can be attributed to the fact that over 50's have been exposed longer to 'traditions and reality' of the low SEN situation in Sudan.

Table 6.21

Mean and standard deviation of age groups on competencies and training needs

Dimension	Age Groups	N	Competencies		Training Needs	
			Mean	Std. Deviation	Mean	Std. Deviation
Knowledge	Less than 30 years	48	3.17	.80	3.07	.89
	30 -39 years	143	3.17	.89	3.35	1.01
	40 -49 years	86	3.16	.86	3.37	.94
	50 years and over	24	3.02	.79	3.07	1.00
Attitudes	Less than 30 years	48	3.05	.74	2.89	.92
	30 -39 years	143	2.84	.89	3.12	1.02
	40 -49 years	86	2.79	.80	3.15	1.08
	50 years and over	24	2.82	.88	2.58	1.07
Assessment, evaluation and recording	Less than 30 years	48	3.15	.75	2.96	.94
	30 -39 years	143	2.99	.86	3.25	1.04
	40 -49 years	86	3.14	.98	3.24	1.00
	50 years and over	24	2.83	.80	2.67	1.16
Planning organisation and management of instruction	Less than 30 years	48	3.00	.86	2.84	.97
	30 -39 years	143	2.68	.92	3.13	1.08
	40 -49 years	86	2.82	.92	3.16	.99
	50 years and over	24	2.79	.85	2.84	1.10
Curriculum adaptation	Less than 30 years	48	2.71	1.04	2.78	1.15
	30 -39 years	143	2.46	.92	3.14	1.17
	40 -49 years	86	2.57	1.04	3.16	1.18
	50 years and over	24	2.75	1.07	2.57	1.24
Instructional competencies	Less than 30 years	48	3.04	.97	2.83	.87
	30 -39 years	143	2.94	.85	3.09	.98
	40 -49 years	86	2.92	.88	3.11	1.03
	50 years and over	24	2.68	.64	2.64	1.06
Management of behaviour	Less than 30 years	48	3.39	.72	3.05	.91
	30 -39 years	143	3.21	.87	3.11	.98
	40 -49 years	86	3.19	.90	3.03	1.04
	50 years and over	24	3.21	.87	2.55	.84
Use of resources (materials and human)	Less than 30 years	48	3.63	.60	3.12	1.01
	30 -39 years	143	3.33	.78	3.12	1.04
	40 -49 years	86	3.25	.86	3.05	1.00
	50 years and over	24	2.75	.78	2.42	.87
Counselling, communication and collaboration	Less than 30 years	48	3.34	1.03	3.00	1.03
	30 -39 years	143	3.25	.90	3.13	1.05
	40 -49 years	86	3.32	.84	3.20	1.02
	50 years and over	24	3.46	1.18	2.62	1.19

Personal skills	Less than 30 years	48	4.11	.62	2.94	1.25
	30 -39 years	143	3.93	.87	2.91	1.20
	40 -49 years	86	3.82	.87	2.78	1.07
	50 years and over	24	3.95	1.14	2.21	.95

Table 6.22

One-way analysis of variance, competencies and training needs with age of teachers

Dimension	Competencies		Training Needs	
		Sig.	F-ratio	Sig.
Knowledge	.145	.933	.969	.409
Attitudes	.651	.583	1.453	.229
Assessment, evaluation and recording	.725	.538	1.726	.163
Planning organisation and management of instruction	.918	.433	.873	.456
Curriculum adaptation	.663	.576	1.571	.198
Instructional competencies	.538	.657	1.332	.266
Management of behavior	.383	.766	1.320	.269
Use of resources (materials and human)	4.035	.008*	1.949	.124
Counselling, Communication and collaboration	.231	.875	1.232	.300
Personal skills	.670	.572	1.578	.197

Table 6.23

Bonferroni's test (post-hoc test) for bivariate differences between mean of the four age groups in the dimension of the Use of Resources

(I) Age	(J)Age	Mean Difference (I-	Std Error	Sig.
Less than 30 years	30 - 39 years	.299	.170	.483
	40 -49 years	.375	.184	.259
	50 years and over	.875	.255	.005*
30 - 39 years	30 - 39 years	-.299	.170	.483
	40 -49 years	.075	.139	1.000
	50 years and over	.575	.225	.069
40 - 49 years	30 - 39 years	-.375	.184	.259
	40 -49 years	-.075	.139	1.000
	50 years and over	-.500	.235	.213
50 years or over	30 - 39 years	-.875	.255	.005*
	40 -49 years	-.575	.225	.069
	50 years and over	-.500	.235	.213

Teaching Experience

The mean scores for teachers with differing amounts of teaching experience are shown in Table 6.24. For competencies, it can be seen from the table that in every dimension, the mean score of the least experienced group (less than 5 years) is higher than those of the other two groups. The difference is particularly large in the dimension of Curriculum Adaptation. The table generally shows less difference between the groups for training needs than for competencies but there is a tendency except in the dimension of Personal Skills, for the teachers with less than 5 years' teaching experience to express less wish for training.

To see if these apparent differences were statistically significant, ANOVA was carried out. The results, in Table 6.25, show that there is only one statistically significant difference, between the scores of the three experience groups, in the Curriculum Adaptation dimension. A Bonferroni post-hoc test (Table 6.26) revealed that there are statistically significant differences between the

teachers with less than 5 years' teaching experience, and both the other two experience groups, possibly reflecting differences in teacher preparation in this area. With this exception, it can be concluded that there was no difference in teachers' confidence that they had the competencies to teach pupils with SEN, and their perceived need/desire for training, between groups with different amounts of teaching experience.

Table 6.24

Mean and standard deviation of teaching experience on competencies and training needs

Dimension	Groups of teaching experience	N	Competencies		Training Needs	
				Std. Deviation	Mean	Std. Deviation
Knowledge	Less than 5 years	26	3.28	.81	3.23	.71
	5-10 years	76	3.13	.84	3.36	.91
	More than 10 years	199	3.16	.87	3.28	1.03
Attitudes	Less than 5 years	26	3.20	.63	2.93	.67
	5-10 years	76	2.77	.79	3.14	1.03
	More than 10 years	199	2.85	.87	3.04	1.08
Assessment, evaluation and recording	Less than 5 years	26	3.19	.76	3.01	.87
	5-10 years	76	2.96	.71	3.12	1.03
	More than 10 years	199	3.06	.94	3.19	1.06
Planning organisation and management of instruction	Less than 5 years	26	3.18	.86	2.91	.89
	5-10 years	76	2.62	.77	3.12	1.04
	More than 10 years	199	2.79	.95	3.08	1.06
Curriculum adaptation	Less than 5 years	26	3.23	1.05	2.97	1.03
	5-10 years	76	2.24	.75	3.10	1.18
	More than 10 years	199	2.59	1.01	3.03	1.21
Instructional competencies	Less than 5 years	26	3.23	.98	1.18	.09
	5-10 years	76	2.89	.76	2.92	.95
	More than 10 years	199	2.91	.88	3.02	.87
Management of behavior	Less than 5 years	26	3.73	.47	3.03	1.04
	5-10 years	76	3.16	.69	3.15	.96
	More than 10 years	199	3.20	.92	3.16	.89
Use of resources (materials and human)	Less than 5 years	26	3.70	.53	2.98	1.02
	5-10 years	76	3.25	.63	3.17	1.01
	More than 10 years	199	3.28	.87	3.08	1.02
Counselling, communication and collaboration	Less than 5 years	26	3.48	.94	3.02	1.03
	5-10 years	76	3.16	.87	3.05	.95
	More than 10 years	199	3.33	.94	3.00	1.03

Personal skills	Less than 5 years	26	4.16	.47	3.13	1.08
	5-10 years	76	4.02	.73	2.98	1.32
	More than 10 years	199	3.87	.94	2.77	1.22

Table 6.25

One-way analysis of variance, competencies and training needs with teaching experience

Dimension	Competencies		Training Needs	
		Sig.	F-ratio	Sig.
Knowledge	.193	.824	.138	.871
Attitudes	1.456	.236	.276	.759
Assessment, evaluation and recording	.454	.636	.232	.793
Planning organisation and management of instruction	2.185	.116	.237	.789
Curriculum adaptation	6.254	.002*	.088	.915
Instructional competencies	1.033	.358	.093	.911
Management of behaviour	2.886	.058	.678	.509
Use of resources (materials and human)	2,032	.134	.174	.841
Counselling, communication and collaboration	.875	.419	.247	.781
Personal skills	1.038	.356	.186	.830

Table 6.26

Bonferroni's test (post hoc test) for bivariate differences between means of the three groups of experiences of teachers in the dimension of Curriculum adaptation

(I) Experience in teaching	(J) Experience in teaching	Mean Difference (I-J)	Std Error	Sig.
Less than 5 years	5- 10 years	.9947	.28609	.002*
	More than 10 years	.6428	.26255	.046*
5- 10 years	5- 10 years	-.9947	.28609	.002*
	More than 10 years	-.3519	.16941	.118
More than 10 years	5- 10 years	-.6428	.26255	.046*
	More than 10 years	.3519	.16941	.118

Qualification

Since teacher preparation in Sudan has undergone several changes in the last 20 or 30 years, teachers in the survey sample had trained in different types of institutes and gained a variety of qualifications. ANOVA was carried out to see if teachers with different qualifications were significantly different in their perceptions of their competencies and training needs. Teachers' mean scores and the ANOVA results are shown in Tables 6.27 and 6.28 respectively.

Table 6.27 shows that for 8 out of the 10 dimensions, teachers with a Bachelor degree in primary education (i.e. trained in a Teachers' College rather than a university) had lower mean scores than their colleagues with a university degree (Bachelor in Education) or post-graduate diploma, for competencies. However, for all dimensions except Personal Skills, it was the teachers with a Bachelor in Education who expressed most need/wish for training. Despite these apparent differences between the groups, ANOVA revealed that they are not statistically significant (see Table 6.28). It can be concluded, therefore, that teachers with different types of qualification are not significantly different in their perceptions of their competencies to teach pupils with SEN, or in their expressed need/wish for training in this area.

Table 6.27

Mean and standard deviation of the score of each of the five groups of the qualifications of teachers on dimensions of competencies and training needs

Dimension	Qualification groups	N	Competencies		Training Needs	
			Mean	Std. Deviation	Mean	Std. Deviation
Knowledge	Bachelor in basic education	69	2.93	.855	3.17	1.000
	One year teacher training Dip	9	3.30	.891	3.00	1.369
	Bachelor of Education	38	3.51	.683	3.48	.783
	Two year teacher training	113	3.13	.816	3.21	1.050
	Other	72	3.21	.939	3.48	.845
Attitudes	Bachelor in basic education	69	2.57	.705	3.03	.969
	One year teacher training Dip	9	3.00	1.031	2.88	1.244
	Bachelor of Education	38	3.15	.542	3.41	.707
	Two year teacher training	113	2.82	.812	2.98	1.132
	Other	72	3.00	1.026	3.03	1.065
Assessment, evaluation and recording	Bachelor in basic education	69	2.92	.793	3.14	1.032
	One year teacher training Dip	9	3.00	1.068	3.08	1.154
	Bachelor of Education	38	3.02	.536	3.38	.869
	Two year teacher training	113	3.07	.897	3.13	1.074
	Other	72	3.12	1.037	3.11	1.066
Planning organisation and management of instruction	Bachelor in basic education	69	2.60	.804	3.09	.994
	One year teacher training Dip	9	3.10	1.137	2.85	1.109
	Bachelor of Education	38	2.93	.707	3.45	.874
	Two year teacher training	113	2.77	.909	2.99	1.116
	Other	72	2.83	1.060	3.02	1.022
Curriculum adaptation	Bachelor in basic education	69	2.36	.809	3.05	.992
	One year teacher training Dip	9	2.50	1.225	2.80	1.643
	Bachelor of Education	38	2.63	.819	3.50	1.069
	Two year teacher training	113	2.55	.985	2.90	1.270
	Other	72	2.71	1.185	3.07	1.192
Instructional competencies	Bachelor in basic education	69	2.83	.802	2.96	.884
	One year teacher training Dip	9	2.80	.991	2.80	.891
	Bachelor of Education	38	2.85	.823	3.32	.920
	Two year teacher training	113	2.88	.857	2.96	1.108
	Other	72	3.14	.934	3.05	.942
Management of behaviour	Bachelor in basic education	69	3.17	.777	3.14	.935
	One year teacher training Dip	9	3.60	.675	3.10	1.069
	Bachelor of Education	38	3.18	.678	3.38	.9345
	Two year teacher training	113	3.18	.882	2.93	1.037
	Other	72	3.36	.974	2.92	.935
Use of resources	Bachelor in basic education	69	3.36	.620	3.08	1.047
	One year teacher training Dip	9	3.50	.935	3.30	1.204
	Bachelor of Education	38	3.47	.566	3.41	.908

(materials and human)	Two year teacher training	113	3.25	.887	2.93	1.070
	Other	72	3.22	.905	2.98	.937
Counselling, communication and collaboration	Bachelor in basic education	69	3.17	.845	3.22	.980
	One year teacher training Dip	9	3.60	1.257	3.24	1.417
	Bachelor of Education	38	3.39	.967	3.41	.935
	Two year teacher training	113	3.26	.915	3.01	1.116
	Other	72	3.40	.969	2.93	1.024
Personal skills	Bachelor in basic education	69	4.02	.789	2.95	1.269
	One year teacher training Dip	9	4.13	.298	3.53	1.043
	Bachelor of Education	38	4.01	.498	2.89	1.203
	Two year teacher training	113	3.72	.924	2.79	1.096
	Other	72	4.09	.966	2.63	1.147

Table 6.28

One-way analysis of variance, competencies and training needs with teachers' qualifications

Dimension	Competencies		Training Needs	
		Sig.	F-ratio	Sig.
Knowledge	1.781	.135	.984	.418
Attitudes	2.288	.062	.781	.539
Assessment, evaluation and recording	.300	.877	.278	.892
Planning organisation and management of instruction	.743	.564	.912	.458
Curriculum adaptation	.692	.598	1.150	.335
Instructional competencies	.875	.480	.663	.619
Management of behaviour	.597	.665	1.115	.351
Use of resources (materials and human)	.555	.696	1.042	.387
Counselling, communication and collaboration	.522	.719	1.038	.389
Personal skills	1.624	.170	.896	.468

Experience of teaching pupils with SEN

A comparison of competencies and training needs between teachers with and without experience in teaching pupils with SEN was carried out using, mean rank, and Mann Whitney test.

Table 6.29 presents the outcome of a comparative analysis of competency scores between teachers who had experience of teaching pupils with SEN, and those who did not. As might be expected, the experienced group had higher mean scores for ratings on competence than their colleagues on all dimensions. These differences were quite large for all dimensions except Personal Skills, and significantly different for two dimensions, Attitudes and Instructional Competencies. It is interesting to note from the mean scores that there was less difference between the two groups in their perceptions of their personal skills in relation to pupils with SEN, than in any other dimension.

Table 6.29

Comparison of competencies between teachers with and without experience in SEN

Dimension	Experience of SEN	N	Mean Rank	Man-Whitney U	Z	Sig.
Knowledge	Yes	12	120.07	363.5	-1.72	.085
	No	289	86.66			
	Total	301				
Attitude	Yes	12	136.00	252.0	-2.56	.010*
	No	289	86.66			
	Total	301				
Assessment, evaluation and recording	Yes	12	118.07	377.5	-1.608	.108
	No	289	86.75			
	Total	301				
Planning, organization and management of instruction	Yes	12	124.50	332.5	-1.940	.051
	No	289	86.48			
	Total	301				
Curriculum adaptation	Yes	12	116.43	389.0	-1.555	.120
	No	289	86.82			
	Total	301				
Instruction competencies	Yes	12	126.79	316.5	-2.079	.038*
	No	289	86.38			
	Total	301				
Management of behaviour	Yes	12	115.50	395.5	-1.475	.140
	No	289	86.85			
	Total	301				
Use of resources	Yes	12	101.57	493.0	-0.743	.475
	No	289	87.43			
	Total	301				
Counselling, communication and collaboration	Yes	12	104.21	474.5	-0.867	.386
	No	289	87.32			
	Total	301				
Personal skills	Yes	12	99.36	508.5	-0.635	.526
	No	289	87.53			
	Total	301				

*Significant at $p \leq 0.05$

Table 6.30 shows the comparable data from training needs in the ten dimensions. For all dimensions, the mean scores of the teachers with experience in teaching pupils with SEN are lower than those of teachers without such experience. This suggests less perceived need for training.

However, those differences between the groups were statistically significant for the dimensions of Assessment, Evaluation and recording, and Planning, organization and Management of Instruction.

Table 6.30

Comparison of training needs between teachers with and without experience in teaching pupils with SEN

Dimension	Experience of SEN	N	Mean Rank	Man-Whitney U	Z	Sig.
Knowledge	Yes	12	59.20	385.5	-1.558	.119
	No	289	89.23			
	Total	301				
Attitude	Yes	12	54.34	352.5	-2.56	.072
	No	289	89.41			
	Total	301				
Assessment, evaluation and recording	Yes	12	42.78	271.5	-1.608	.015*
	No	289	89.79			
	Total	301				
Planning, organization and management of instruction	Yes	12	45.63	291.5	-1.940	.023*
	No	289	89.75			
	Total	301				
Curriculum adaptation	Yes	12	73.85	488.5	-1.555	.442
	No	289	88.57			
	Total	301				
Instruction competencies	Yes	12	63.20	414.5	-2.079	.182
	No	289	89.02			
	Total	301				
Management of behaviour	Yes	12	63.28	415.5	-1.475	.183
	No	289	89.20			
	Total	301				

Use of resources	Yes	12	59.56	389.0	-0.743	.123
	No	289	89.18			
	Total	301				
Counselling, communication and collaboration	Yes	12	58.34	380.5	-0.867	.112
	No	289	89.23			
	Total	301				
Personal skills	Yes	12	63.90	419.5	-0.635	.192
	No	289	88.01			
	Total	301				

*Significant at $p \leq 0.05$

6.2.3. Interest in and preferences for future training opportunities

Section III (questions 36-40 of the questionnaire) asked teachers whether they would be interested in participating in additional training in the area of SEN, and to indicate the level of their interest in specific training formats. The outcomes are shown in Table 6.31.

The types of training in which teachers expressed most interest were interest in an in-service training in the area of SEN 80.4% (question 36) and individual advice from consultants/specialists 77.1% (question). Whereas, two third of the respondents have shown interest in attending workshops, seminars, short courses and professional days (question 38) and observing experienced teachers (question 39). They have shown less interest in receiving training materials such as books and videos (question 40). In the additional comments, very few teachers expressed the need for courses that would require a longer-term pre-service and in-service training to qualify mainstream teachers for inclusive education.

Table 6.31

Responses for interest in future educational opportunities

Question		Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree	Total	M	R
36	N	16	33	10	180	62	301	3.80	1
	%	5.3	11.0	3.3	59.8	20.6	100		
37	N	17	28	24	163	69	301	3.79	2
	%	5.6	9.3	8.0	54.2	22.9	100		
38	N	31	57	31	122	60	301	3.41	3
	%	10.3	18.9	10.3	40.5	20.0	100		
39	N	34	67	19	122	59	301	3.34	4
	%	11.3	22.3	6.3	40.5	19.6	100		
40	N	46	84	36	108	27	301	2.94	5
	%	15.3	27.9	12.0	35.9	8.9	100		

6.3 Interview Data

As mentioned earlier in the previous chapter, interview data was used as complementary to the survey and literature to answer the research questions (see Table 5.1). The three target populations for the interviews, and the sample selection procedures, were explained in Chapter Five (Methodology). In this section, the responses are reported for each sample in turn. The results were summarized in tables to make it easy for the reader followed by comments on the findings.

6.3.1. Interviews with Teachers (N = 20)

1) Do you currently teach, or have you ever taught, in the mainstream classroom, any pupils whom you think have SEN? Can you give any examples of the sorts of special needs you have encountered?

All the teachers interviewed were aware of the presence of pupils with SEN in ordinary schools. One teacher stated: *"There are a few of disabled pupils here in ordinary schools and we might meet one or two of them"*, while another commented that *"There are such pupils in every school"*.

However, only four had actually taught such pupils. Two of the interviewees mentioned specific projects in their schools, whereby pupils had been transferred from special schools to mainstream, being taught in a separate class for most subjects, but integrated with their peers for art and P.E. lessons. Only one interviewee taught in resource room programme.

Three teachers commented that there are only a few children with SEN in their schools, and one specifically reported that there were 4 children with SEN in his school.

Various types of SEN were reported, as shown in Table 6.32.

Table 6.32
Categories of SEN reported by teachers

Category	No. of teachers
SEN	2
Mental retardation	7
Visually impaired	11
Hearing impaired	12
Speech special educational needs	4
Severe leaning difficulties	5
Difficulty writing and reading (dyslexic)	2
Emotional difficulties	5
Social SEN	4
Physical disabled	3

The most frequently reported types of SEN were hearing special educational needs and visual special educational needs. SEN and mental disabilities were reported by teachers in the schools with resource room programmes or special classes focusing specifically on the needs of those pupils.

One of the interviewees in a school with a designated class for pupils with SEN was at pains to point out how successfully these pupils were integrated into ordinary art and P.E. lessons: *"In such classes it's difficult to distinguish the pupils with SEN from the others"*. Moreover, he pointed out, the pupils benefited from the social interaction of the mainstream environment in developing life skills: *"*

“those with mental problems can go to the canteen, buy food, pay money and take the change, unlike their situation in the special education institute where they get free meals”.

2) What particular difficulties or challenges do you face in teaching these children? e.g. in relation to their learning needs, their behaviour, their psychological/emotional needs.

Several difficulties were faced by teachers when they were teaching pupils with SEN (see Table 6.33).

Table 6.33

Teachers perceptions of difficulties faced in relation to pupils with SEN

Category	No. of teachers
Lack of parental co-operation	7
Lack of time	13
Lack of experience/training	10
Large class size	3
Unsuitable building	12
Unsuitable curriculum	7
Teaching workload	8
Pupil's nervousness	2

The most widely reported problem, mentioned by more than half the teachers, was lack of time since, as these teachers pointed out; pupils with SEN require extra attention in class. This problem is likely in some cases to be related to other problems mentioned; of unsuitable curriculum and large class sizes one teacher mentioned (*I teach classes of 59 or more pupils with the pressure to cover the lengthy syllabus*). It is worth mentioning that the average class size in basic schools in Sudan is 55 pupils which is double the class size in England. Moreover, traditional teaching methods e.g. lecturing and dictation are still dominant with no teacher assistants' or audio visual teaching aids available.

This highlights the lack of the necessary materials and resources that make the school an inclusive environment for education of all children at school age, especially children with SEN. The Index of Inclusion (Booth and Ainscow, 2002) asserted the importance of these resources to enable teachers in mainstream classes meet the different needs of children with SEN.

Half of the teachers claimed to have insufficient experience to help pupils with SEN. Indeed, the lack of relevant teacher preparation to teach pupils with SEN was one of the most commonly reported problems (10 teachers) and the teachers in question called for training programmes in this field.

Twelve teachers said that parents do not understand what is meant by 'SEN', especially as the 'SEN' programme began only one year ago. Seven claimed that parents do not help teachers, since they do not visit the school and do not follow-up their sons and daughters' progress. It was said that some families ignore their sons with SEN and do nothing to try to improve their case.

Twelve teachers said buildings were unsuitable for the education of pupils with SEN. There were not enough facilities for teaching these pupils and classes were poorly organised and overcrowded.

3) Which aspect of teaching or interacting with children with SEN do you find most difficult? Can you suggest any reasons for that?

When asked what they found most difficult when teaching pupils with SEN, teachers gave responses that can be summarised into two main categories: 1) difficulties in teaching pupils who have cognitive problems (memory, comprehension, recognition) (12 teachers); 2) teachers' lack of training in this field (7 teachers); see Table 6.34.

Table 6.34

Teachers perceptions of aspects of greatest difficulty when teaching pupils with SEN

Difficulty	No. of Teachers
Pupils with poor academic skills	3
Mental disabilities	12
Lack of experience/training	7
Pupils with hearing special educational needs	3
Lack of family co-operation	2
Suitable learning strategies	3

Most teachers expressed their difficulties in general terms, such as "pupils' low understanding" but three reported specific difficulties in teaching hearing-impaired pupils. One said, "*I have no idea*

about the methods used to teach them", while another cited a specific case which illustrates the frustration caused to both pupil and teacher when teachers lack needed competencies: "A pupil stayed for two years in grade three, without any progress, because he only understands sign language, which was so difficult for me, as I haven't had any training in this field."

This confirms the need for a proper pre-service and in-service teacher training in order to assure that teachers have the competencies, skills and positive attitudes to teach inclusive classrooms.

4) Can you give examples of any particular methods or approaches you use in teaching children with SEN?

The strategies employed in teaching pupils with SEN are shown in Table 6.35.

Table 6.35
Methods used by teachers in teaching pupils with SEN

Strategy	No. of teachers
Visual and tactile aids	5
Audio-visual aids	1
Show respect/build self-esteem	2
Extra time	4
Games	2
Less homework	2
Treat all the same	2
Sit child at front of class	5
Refer to resource room	5

By far the most common strategy adopted was the use of simple teaching aids designed to appeal to the senses of sight and touch (5teachers). Notably, all but one of the teachers reporting this method came from schools with special programmes. The main strategy adopted by teachers in mainstream schools was to try to devote extra time to pupils with SEN.

Only two teachers mentioned giving individual attention to children with SEN during lessons, but others tried to spare additional time for them after the lesson or during the break.

Some teachers, however, seemed unaware that children with SEN might need special attention, or were unsure how to direct their efforts. One said *"There are no special methods "*, while another commented: *"Since I am not experienced in that field, I am not able to recognise these pupils, so I treat all pupils the same way, the pupils with SEN and the normal ones."*

The impact of the lack of a clear inclusion policy is evident. Children with SEN are attending mainstream school without the necessary arrangements for inclusion, e.g. teacher preparation for inclusion and the necessary resources and support for inclusive classrooms.

5) Do you think your pre-service training prepared you adequately to teach children with SEN? If yes, in what way? If not, why not? What were the deficiencies?

Regarding teachers' initial preparation for teaching, 18 of the teachers interviewed, did not have any pre-service training related to SEN because they said there were no training programmes in that area in their courses. Consequently they were not prepared to teach pupils with SEN. In some cases, this was because, at the time the teachers in question qualified, pupils with SEN were all placed in special institutions and there was no perceived need to prepare mainstream teachers to teach them. Another teacher remarked: *"I think there was an optional subject in college about special education, but it was not available every semester."* Only one teacher had received pre-service training in this area — he was a qualified teacher in a schools with special classes. He mentioned that the training was not enough, and all highlighted the need for continuing professional development (see Table 6.36).

Table 6.36

Teachers perceptions of adequacy of pre-service training related to SEN

Comment	No. of teachers
None received	18
Training received, insufficient	1
Training adequate, supplemented by experienced SEN specialists	1

6) What in-service training opportunities are available to mainstream teachers to help them teach children with SEN?

Regarding in-service training opportunities, three teachers said that there were a few training courses for teachers who accept to teach pupils with SEN, and that other teachers did not attend these courses. One teacher mentioned that 10-day courses in special education for non-specialists. Most (16) teachers, however, thought that no training courses or programmes existed, but they recommended organising training courses for basic schools teachers, with a special emphasis on SEN (see Table 6.37).

Table 6.37

Teachers perceptions of availability of in-service training on SEN

Comment	No. of teachers
Training available for specialists	3
Training available for non-specialists	1
No training available	16

7) Have you ever attended any in-service training in relation to SEN? If no, is that because you have not been given an opportunity or for some other reason? If yes, can you describe that training? (Where, when, content). How satisfied were you with the course? To what extent did it meet your needs?

Teachers' responses regarding their own experience (if any) of in-service training in relation to SEN are summarised in Table 6.38.

Table 6.38

Teachers' attendance of in-service training

Course	No. of teachers
Training centre (1 week)	2
Lecture (1 hour)	4
Seminar	1
None	13

The majority of teachers (13 teachers) had never attended training programmes in the field of SEN. Two said this was because there were no compulsory training programmes in this field. Lack of information also appeared to play a part in non-attendance, according to two interviewees, one of whom commented, *"I don't know anything about such courses; I would attend these courses if they were organised."*

Two teachers had attended training courses about SEN in schools, and subject-specific teaching methods, and four had attended lectures about SEN, and the responsibilities of special education. These lectures were purely theoretical and there were no practical cases. Two teachers mentioned that the lecture or seminar they had attended had been useful in raising their awareness of the SEN issue, but others complained that courses were too short to meet their needs; no-one had attended a course of any more than a week's duration. It was also notable that only teachers involved in special classes and resource room programmes had attended training.

8) If you have a problem in relation to a child with SEN, what do you do? Is there anyone you can ask for advice? Would you look for ideas in books and journals? Or do you try to work out a solution yourself?

Teachers' responses to this question are summarised in Table 6.39.

Table 6.39

Methods of solving problems used by teachers in relation to pupils with SEN

Method	No. of teachers
Consult specialist	13
Journals/books	4
Work out solution by self	9
Contact parents	4
Refer to school counselor	2
Inform admin	1

The majority of teachers (13) said that they asked advice from more experienced teachers, such as the resource room teacher if there is one at the school, if they had a problem in relation to a pupil

with SEN, and (4) tried to find answers through reading. If a problem was easy, some teachers (9) felt they could deal with it themselves while other problems required consultation with specialists in this field. Most teachers, however, felt unable to attempt to solve problems in relation to SEN themselves. One teacher quoted: *"I don't try solving the problem myself because I don't have experience in this field, but I inform the school administration about it."*

9) Is there any kind of information that you need, or any skills that you would like to develop, to help you teach children with SEN?

When asked about information and skills required for teaching pupils with SEN, most teachers did not identify specific issues or topics, but commented on the difficulty of getting access to information generally (see Table 6.40).

Table 6.40

Teachers perceptions of information needs in relation to SEN

Response	No. of teachers
Training	6
Books/journals	12
Guidance on how to use available info	1
Teaching aids	3
Teaching methods	2
SEN	1

Most teachers (12 teachers) wanted to see their school library expanded with specialist references, such as books and journals. One commented that although information is to be found in books and journals, *"there's no guidance on how to make use of it."*

Six teachers asked for training programmes to be held, for example, *"We need training courses about teaching skills to children and another about using teaching aids."*

Of the few teachers who mentioned specific topics or skills, three mentioned teaching aids and two mentioned teaching methods - in one case, with specific reference to the teaching of reading.

10) What do you think are the priorities in training teachers to include pupils with SEN? In other words, what should the training most concentrate on?

The following table (6.41) shows teachers' responses in relation to this question.

Table 6.41

Teachers perceptions of priorities in training in SEN

Topic	No. of teachers
Awareness of meaning of SEN	5
How to teach children with SEN	15
Transmitting information	2
Making/using teaching aids	2
How to identify children with SEN	17
Evaluation	1
How to motivate pupils with SEN	1

Teachers' main concerns were how to identify pupils with SEN (17) and how to teach them (15). Two teachers specifically mentioned a need for advice on how to make and use teaching aids, and one wanted training in evaluation. In general, however, teachers' responses were very broad and vague, such as "*ways to teach these pupils* ", which suggests that teachers perhaps had too little information and experience to pinpoint specific needs and priorities. In this connection, it is interesting that the teachers who suggested specific topics were from schools with special classes.

6.3.2. Interviews with School Supervisors (N = 10)

1. How long have you been working in the general education field?

The responses are summarised in Table 6.42.

Table 6.42

Supervisors experience in general education

Years	Number
1 - 10	4
11 - 20	4
21 - 30	1
Over 30	1

All the interviewees were experienced educationists; the two with least experience had been in the field for six years, while one interviewee had been in general education for 39 years. The average length of experience was 16 years.

2. How long have you been a supervisor?

Interviewees' supervisory experience is summarised in Table 6.43.

Table 6.43

Years of experience of supervisor

Years	Number
1 - 5	5
6 - 10	2
11 - 15	1
16 - 20	2

Interviewees had been working as supervisors for periods ranging from one to 20 years, the average being seven years.

3. What subjects did you specialise in at college/university?

Table 6.44 shows supervisors' college/university specialism.

Table 6.44

Supervisors' specialisation in university/training institute

Level	Subject	Number
BA	Social Studies	3
	Islamic Studies (Religion)	1
	Science	2
	Languages	3
	Special Education	1
MA	Education	1
	Education Psychology	1
PhD	Educational Psychology	1

Three of the interviewees had specialised in social studies, three had specialised in languages, two of them were in Arabic, and one teacher in each of the remaining specialism. Only one had specialised from the outset in the field of special education that was a female teacher graduated from Egypt. Two interviewees mentioned post graduate qualifications - one in Education and one in Educational Psychology; the latter was the supervisor whose first degree was in Psychology.

4. What subject(s) do you currently supervise?

The subjects currently supervised are shown in Table 6.45.

Table 6.45

Subjects supervised by supervisors

Subject	Number
Social Science	3
Islamic Studies	1
Languages	2
SEN programme	1
School administration	1
Special education	1
Maths	2
Science	2

For the most part, supervisors were supervising the same subjects in which they had specialised at college/university, but there were some exceptions. Two who had specialised in science found themselves supervising not only these subjects but also mathematics. One of the social science graduates was currently supervising school administration and special education. The supervisor who had specialised in Special Education was supervising the SEN programmes (special classes) run in two schools in the state.

5. How many schools do you inspect a year?

Table 6.46 shows the number of schools for which each supervisor was responsible.

Table 6.46

Number of schools visited by supervisors

Number of schools	Number
Fewer than 10	1
11-20	5
21-30	2
31-40	1
More than 40	2
Not specified	1

The number of schools supervised varied widely; one supervisor supervised only five schools, while two visited more than 40. The average number of schools which a supervisor visited was 22 schools.

6. How many teachers does inspection involve?

Table 6.47 shows the number of teachers supervised.

Table 6.47

Number of teachers supervised

Number of teachers	Number
Fewer than 50	1
51-75	2
76-100	6
More than 100	1

The number of teachers supervised ranged from 14 to 130, with an average of 88. There was no direct correspondence between the number of schools and the number of teachers, as the sizes of school varied considerably; for example, the supervisor who visited only five schools supervised a total of 92 teachers - more than were supervised by some supervisors who visited more than 40 schools. The supervisors who supervised only 14 teachers was an exception to the general pattern, because he supervised special education programmes for pupils with SEN, which involved just one teacher in each school he visited.

7. How often do you visit each school?

The number of visits per school, per semester, is shown in Table 6.48

Table 6.48

Number of visits by supervisors per school, per term

Visits per semester	Number
1 - 3	2
4 - 6	3
More than 6	1
Not specified/variable	4

The number of visits paid to each school varied from one to six or more per term. Four supervisors said it depended on the size of school and number of teachers to be seen in each school; one said that his practice varied according to the needs of the teacher, i.e. depending on differences in competence and experience.

8. Are there any pupils with SEN in any of the schools you visit?

Table 6.49 summarises the responses regarding the presence of pupils with SEN in the supervised schools.

Table 6.49

Supervisors perceptions of presence of pupils with SEN

Type of SEN	Number
Speech disability	5
Visual special educational needs	2
Hearing special educational needs	2
SEN	4
Mental special educational needs	1
Physical special educational needs	1

All supervisors had encountered pupils with SEN, the most common difficulties being speech impediment and "low understanding level" (SEN). Four supervisors commented that there were very few such children. In contrast, the supervisor of SEN programmes reported that the 13 programmes in the district currently serve about 157 pupils. He also mentioned that some pupils attending schools that did not have their own special education programmes attended an "Evening Centre for SEN" on two evenings per week, in addition to their normal day-school attendance.

These evening classes taught at special education institutes e.g. Al-Noor and Al-Salamabi mentioned in Chapter One by volunteer teachers who help to improve the quality of educational attainment for children with SEN.

Supervisors' experience or awareness of the presence of pupils with SEN varied according to the educational stage(s), and the types of schools they supervised. One supervisor with responsibilities across all stages of general education, for example, claimed that pupils with SEN are rarely

encountered in intermediate and secondary schools, but are more often found in primary schools. This situation may be explained by the comment of another interviewee that pupils with SEN often drop out of school *"because they cannot adapt to the school environment or because of social conditions"*.

9. To what extent do teachers try to give special help to pupils with SEN?

The various ways of responding to pupils with SEN, observed by supervisors, are summarised in Table 6.50.

Table 6.50

Supervisors perceptions of help provided for pupils with SEN

Response	Number
Little/no help	7
Help by mainstream teacher	3
Special classes/programmes	2
Inform school counselor	1

Three supervisors said that some teachers do their best to help pupils with SEN, but there are individual differences among them. A problem arises because of the increasing number of pupils in class; it is supposed not to exceed 15 pupils, but in practice may reach 35 or more, due to the population density in some areas. Teachers' ability to teach special needs is reduced by such classes and by their heavy teaching load (24 hours weekly).

Most supervisors (7 supervisors) said that some teachers give little or no help to such pupils. As one teacher said, *"They only inform the student counsellor but they do not try to help them in education, discussion and answering questions. These teachers usually blame the health unit for accepting such students in mainstream school"*. One supervisor commented that some teachers are impatient with such pupils and blame them for their inability to understand.

Two supervisors thought that pupils with SEN received help, but in special programmes. One of these described sustained efforts to assess students' needs and, if necessary, help them by setting

up a remedial class, or changing classes, on the basis that some pupils might respond better to another teacher's teaching approach.

10. How well prepared are teachers, in general, to teach pupils with SEN?

Supervisors' perceptions of the ability of mainstream teachers to cope with pupils with SEN is summarised in Table 6.51.

Table 6.51

Supervisors perceptions of ability of teachers to help pupils with SEN

Response	Number
No - lack of experience/training	6
No - time/resource constraints	3
Yes	1
Yes — in special programmes	2
Depends on the teacher	2

The situation was well summed up by the supervisor who commented, "*They are willing, but not trained or experienced to identify these pupils or to teach them*". Supervisors had also received complaints that there are too many pupils in schools and there is not enough time to teach these pupils, since pupils with SEN need special attention and the time available in class is not sufficient even for students who do not have SEN. Two supervisors thought that teachers were able to help pupils with SEN, but their comments indicated that they envisaged this help being provided in special programmes, rather than as part of the regular mainstream teaching.

The majority of supervisors (9) did not think that mainstream teachers were currently able to meet SEN. Six of them saw lack of experience and training as the reason for this.

11. What sort of difficulties do mainstream teachers face in teaching pupils with SEN?

The types of difficulty faced by teachers, as perceived by supervisors, are shown in Table 6.52.

Table 6.52

Supervisors perceptions of difficulties encountered when teaching pupils with SEN

Types of difficulty	Number of responses
Lack of knowledge/training	4
Lack of support from parents	2
Time/resource constraints	5
Lack of social awareness	1
Students' deficits	3

Three supervisors, in answering this question, focused on the pupils' physical and emotional problems, rather than the specific difficulties these pose for teachers.

The problems mentioned include:

- Problems with vision or hearing.
- Defect in pronunciation.
- Difficulties in playing with other pupils.
- Talking out of turn when questions are put in class.
- Isolation and lack of participation in activities.
- Being slow in learning writing and inability to distinguish and use letters and numbers.
- Being ashamed and embarrassed in the presence of their peers.
- Being aggressive towards their peers.
- Hesitation in answering questions.

Four interviewees noted that it was especially difficult for teachers to cope with SEN due to lack of training in this field. As one said, *"Teachers can teach normal pupils who are moderately intelligent or above, but they do not know how to teach pupils with SEN because they do not have the basics for teaching them"*.

About half the supervisors, in addition, mentioned time and resource constraints. These included difficulties related to organisational issues, summed up in the comment, *"too many lessons and not*

enough time", or to lack of suitable educational aids. Three supervisors mentioned the environment outside the school; it was suggested by two supervisors that the teacher's job is made more difficult by lack of co-operation from children's parents, while one interviewee complained that "*there is no social awareness [of how] to teach these pupils*".

12. What training and/or experience have you had in the area of SEN?

Supervisors' training and experience in relation to SEN is summarised in Table 6.53

Table 6.53
Supervisors training/experience in SEN

Experience/training	Number
None	7
Books/films	1
University – degree	1
In-service courses	2
Experience as school counselor	1

The majority of supervisors (7) had no training or experience in the field of SEN and they expressed a strong need for training courses to be able to assist and guide teachers in this field.

Two supervisors thought they had acquired some knowledge in this field, one from reading some specialised books and watching some educational films concerning pupils with SEN, and the other from working as a school counsellor (though untrained) but their experience, as they acknowledged, was very limited.

Only two supervisors, the two with supervisory responsibilities in special education, had received specific training in this field. The supervisor of SEN programmes, in addition to his degree in Special Education, had taken two, two-week courses in diagnosis and teaching SEN, held in Egypt and Syria. Each course included lectures and workshops at schools which covered how to identify such pupils and teach them using suitable teaching methods. The other supervisor with

responsibility for special education had attended a short course in SEN, attended several conferences and participated in research in the field of SEN.

13. Is your current level of knowledge about SEN sufficient enough to enable you to advice and support teachers in this area?

Supervisors' perceptions of the adequacy of their knowledge in relation to SEN are shown in Table 6.54.

Table 6.54

Supervisors perceptions of adequacy of knowledge/experience teachers' Advice

Ability to advise teachers	Number
Yes	1
Limited — based on experience	2
Limited — based on reading	2
Not at all	5

All except one of the supervisors considered that they had insufficient knowledge in this field. Even the supervisor with most training in the field, i.e. the one who had a degree in special education, admitted that the complexity of the field is such that he still did not know enough about it, and had a need for continuing professional development in this area. In the absence of formal training, some supervisors tried to fulfil what they saw as their responsibility to guide and direct teachers, by relying on their previous teaching and supervisory experience, or by looking for information in books and journals. As one commented, *of course it is not enough, but it is the nature of my work to direct teachers to take care of such pupils. I think that reading will help me... "*

14. Have you ever been asked for such advice, or do you volunteer it?

Supervisors' experience of being asked for, or volunteering, advice is summarised in Table 6.55.

Table 6.55

Supervisors' advice to teachers

Response	Number
Asked	4
Volunteer	4
Other	2

Four supervisors were asked by parents or teachers to teach problems related to pupils with SEN. As one of them commented, *"I think teachers have the desire to help pupils with SEN, but they don't have enough information"*. Other supervisors gave advice voluntarily based on their observations of the problems of pupils with SEN. On the other hand, two supervisors did not give such advice at all. One of these said that he was only asked about "normal" pupils; the other said he was not asked about pupils with SEN but became aware of students with difficulties when he examined records of student achievement.

15. What other sources of advice and support are available to help teachers meet the needs of pupils with SEN?

Sources of advice, other than themselves, suggested by supervisors, are shown in Table 6.56

Table 6.56

Supervisors perceptions of other sources of advice available to teachers

Source	Number
None	3
Specialists	3
TV	2
Publications	4
Training	5

Supervisors suggested various sources of advice and support to help teachers to teach pupils with SEN, including:

- Training courses, conferences, seminars and workshops (5 supervisors).

- Specialised references such as books and journals (3 supervisors).
- Pamphlets that are published regularly about pupils with SEN (one supervisor).
- Special programmes on TV regarding pupils with SEN (2 supervisors).

Three supervisors suggested specialist personnel who could advise teachers, namely, specialist supervisors (such as the one who supervised SEN programmes); special education teachers, such as those teaching in special classes and resource room programmes; and staff of the peripatetic counsellor teacher programmes (see Chapter One) - although so far, there are very few such programmes.

16. How effective and accessible are these sources?

Perceptions on the effectiveness and accessibility of resources are shown in Table 6.57.

Table 6.57

Supervisors' perceptions of effectiveness and accessibility of sources

Response	Number
Not available/accessible	4
Limited accessibility/effectiveness	4
Yes, accessible and effective	2

The existing resources were generally said to be effective, but supervisors differed in their perceptions of the accessibility of resources. One interviewee complained that relevant books and journals are not available in public libraries and another suggested they are normally only available in special education institutions. Access to specialist personnel was said to be limited, since not all schools have a special education teacher; one supervisor said he would like to see such a teacher in every school. Four interviewees suggested that training courses would be the most effective source of help, but that at present there is a lack of such courses directed at mainstream teachers. The impression that emerged was that the onus would be on the teacher to seek out sources of information; as one supervisor commented, *"It depends on the teacher; if he wants to learn; he will find books and references in that field available"*.

17. Do you think there is a need for more pre-service preparation for teachers to include pupils with SEN?

Supervisors' suggestions regarding pre-service training are shown in Table 6.58.

Table 6.58

Supervisors perceptions of need for more pre-service preparation for SEN

Response	Number
As a special subject in university	4
Additional modules in existing courses	5
Setting up special departments	2
Practical application	2
"Study" (type unspecified)	1

All supervisors replied in the affirmative. Two suggested setting up special education departments in universities and teacher training institutes and four thought teachers needed to study special education as a specialist subject at university level, but the most popular suggestion was inserting special education modules into the existing teacher training courses. Two interviewees remarked that theoretical study should be accompanied by practical application.

18. Do you think there is a need for more training, advice or support for teachers to include pupils with SEN?

In-service training needs identified by supervisors are shown in Table 6.59.

Table 6.59

Supervisors' perceptions of training/advice/support needed for serving teachers

Response	Number
Training courses	10
Meetings	2
Workshops	2
Teacher handbooks	4
Visits	2
Training for directors	1

All supervisors except one emphasised that mainstream teachers need training courses, while others mentioned workshops, seminars, educational teacher handbook and exchange visits in this field to develop teachers' knowledge and skills to teach pupils with SEN properly, but several said that unfortunately these sources do not currently exist. One attributed this deficiency to the lack of specialists to teach such courses. An interesting observation by one supervisor was that it is not only teachers who need training; "directors" (i.e. head teachers and administrators) also need training, in order to support teachers adequately in their efforts to teach pupils with SEN.

19. What are the priorities for training in SEN?

Suggested training priorities are shown in Table 6.60.

Table 6.60
Supervisors perceptions of SEN training priorities

Response	Number
Teaching competencies (in general)	1
Psychology for SEN	1
Identifying pupils with SEN	4
Teaching methods	8
Social integration	3
Testing	1
Medical/support facilities available	2
Providing information to families	1
"Helping pupils with SEN"	1

Supervisors emphasised that the first priority is to train teachers in how to identify pupils with SEN (4 responses) and how to teach them (8 responses). Other supervisors were more specific, suggesting that teachers need to be taught how to carry out diagnostic tests of understanding, sight, hearing and so on, to identify pupils' problems. Other competencies mentioned (each by one interviewee) were knowledge of medical facilities available for children with SEN, and the ability to provide information to families. Three supervisors made reference to facilitating the social integration of children with SEN alongside their peers.

6.3.3. Interviews with teacher trainers (N = 10)**1. How long have you worked as a teacher trainer?**

Interviewees' experience as teacher trainers is summarised in Table 6.61.

Table 6.61
Experience of teacher trainer

Years	Number
Up to 10	3
11-15	4
16-20	3

The table shows that experience of the interviewees as teacher trainers ranged from 3 to 20 years, with an average of 12.2 years.

2. How long have you worked in the field of SEN?

Interviewee's experience in the field of SEN is summarised in Table 6.62.

Table 6.62
Experience of teacher trainers in SEN

Years	Number
None, directly	1
Up to 10	3
11-15	2
16-20	4

One respondent said that he had never worked directly with pupils with SEN, but had been involved in supervising student teachers on their teaching practice placements and had gained experience of pupils with SEN in this way. Other interviewees reported from 3 to 20 years of experience, with an average of 2.2 years. Although the range and the average were the same as given for experience as a teacher trainer (Question 1, above), only five interviewees reported exactly the same number of years experience in SEN as in teacher training. Three interviewees reported involvement in SEN that predated their experience as teacher trainers. One, for

example, reported 14 years' experience in the field of SEN, first as a teacher, then as a supervisor; only in the last 8 years had he been a teacher trainer. Two others had been involved in the SEN field for 17 years; 2 years as teachers and 15 years as teacher trainers. Conversely, there were two respondents who reported more years' experience as teacher trainers than in the field of SEN. One had been a teacher trainer for 12 years, but had been involved in the SEN field for 10 years. The other had been a teacher trainer for 6 years, and had been involved in special education for 3 years.

3. How do you describe your involvement with preparation and delivery of training courses in SEN?

The responses in relation to the nature of involvement with courses related to teaching pupils with SEN are shown in Table 6.63.

Table 6.63

Nature of involvement of teacher trainers in SEN

Activity	Number
Supervision/administration	4
Planning	5
Lecturing	10
In-service training	2
Public lectures/media	1
Committees	3
Research/writing	1

All trainers interviewed were lecturers in programmes for the preparation of special education teachers, who would be preparing to teach either in special institutions or in special classes and programmes within mainstream schools. Normally, although not always, these would be post-graduates who already had some experience as mainstream teachers (see Chapter One). Depending on their specialisation, some teacher trainers might additionally have input into mainstream teacher preparation through, for example, Educational Psychology modules. Others, however, specialised in such areas as SEN or mental retardation, and, since pupils diagnosed in these categories are

taught in special programmes by specialist teachers, these lecturers were not involved in basic schools teacher preparation.

In addition to their lecturing in the Special Education Department, 5 interviewees had input into programme planning and curriculum development and 3 were members of various committees on special education. Four had responsibilities in technical and administrative supervision of schools and institutions and SE. One interviewee was the author of several books and articles on the field of SEN.

4. What special knowledge, skills and attitudes do basic school teachers need in order to include pupils with SEN in mainstream classrooms?

Five interviewees asserted that Sudan has already embarked on a policy of inclusion of children with SEN, though they differed in their perceptions as to how long this policy had existed or how extensively it was implemented. They all agreed, however, that mainstream teachers need special knowledge, attitudes and skills to cope with these developments. One went so far as to say that *"teachers are in bad need of the required competencies"* and suggested that *"inclusion will lead to negative results if mainstream teachers do not receive training beforehand"*. The actual requirements mentioned by the interviewees are summarised in Table 6.64. To facilitate comparison and later discussion, these are grouped, where possible, using the same categories as were used in the Teachers' Questionnaire.

Table 6.64

Teacher trainers perceptions of knowkdge/skills/attitudes needed by teachers

Requirement	Number
Knowledge	7
Positive attitudes	4
Assessment	3
Plan/organise/management of teaching	2
Teaching competencies	4
Behaviour management	4
General competencies	1
Advice from specialist teachers	4

Seven supervisors mentioned Knowledge requirements. Of these, 4 said that teachers need theoretical knowledge about the nature of pupils with SEN and related aspects, so they can recognise their features and their needs. For example, one interviewee suggested that teachers need knowledge of *"the nature of every special educational need. and the effect on psychological, social, health, emotional and educational status [of the pupil]"*. Other kinds of knowledge mentioned (by one interviewee in each case) were knowledge of psychology, of the concept of inclusion, and of the facilities and services for children with SEN available in Sudan.

The need to develop positive attitudes towards pupils with SEN was mentioned by 4 interviewees. For example, one trainer called for teachers to have *"faith in their abilities and rights to have appropriate services"*. Another asserted that *"the teacher should accept the pupil with his problems* and deal positively with [difficult] behaviour to change it"*, bearing in mind that *"his reactions affect students' feelings and emotions"*.

Specific skills mentioned included diagnosis of special needs, the ability to prepare individualised learning plans, ability to use a wide range of teaching strategies and methods as needed to help the child's academic progress and social adaptation, and behaviour management techniques.

Four interviewees suggested that the required competencies could be developed by exchange visits and co-operation among teachers, including advice from specialist teachers, to share relevant knowledge and experience.

5. To what extent do existing pre-service training programmes prepare mainstream teachers to meet the requirements of pupils with SEN?

Teacher trainers' views on the adequacy of pre-service training programmes are summarised in Table 6.65.

Table 6.65

Teacher trainers perceptions of adequacy of existing pre-service programmes in relation to SEN

Response	Number
Yes	3
Somewhat	2
No	5

This question elicited conflicting opinions, from *"current pre-service training programmes do not play any role at all to "a student acquires all the needed skills and competencies"*. The diversity of opinion can be explained by differing interpretations of the term "mainstream teachers" since, as explained earlier, the pre-service programme provided by the Special Education Department prepares teachers to work, not only in special institutes, but also in special classes and programmes in mainstream schools. Those interviewees who suggested that current training is satisfactory appeared to have these special education programmes in mind; two of them referred explicitly to their department's success in this area.

There is a difference, however, between the training provided for those intending to teach in special programmes in mainstream schools, and the general education degree that prepares teachers for mainstream classes. Speaking of this preparation, two interviewees thought that the course went some way towards preparing mainstream teachers to teach pupils with SEN, but the majority thought the course was not satisfactory at all. One commented, *"For mainstream teachers, we are asking to provide them with curricula which give them general skills sufficient for teaching pupils with SEN in their classrooms. But there are restrictions of other departments which prevent achieving this aim "*.

6. To what extent do current in-service training programmes prepare mainstream teachers to meet the needs of pupils with SEN?

Teacher trainers' responses to this question are summarised in Table 6.66.

Table 6.66

Teacher trainers perceptions of adequacy of existing in-service programmes in relation to SEN

Response	Number
Yes	5
Somewhat Teacher trainers perceptions	3
No	2

Three respondents said that in-service training programmes have a weak role in equipping mainstream teachers to teach pupils with SEN. They added that information technology in the field of education may help in this field.

Five respondents said that in-service training could play an important role if they were designed and used in a proper way to prepare teachers and supply them with information and experience. For this reason, they advised presenting in-service educational courses in different fields to provide teachers with an individual base to teach special needs. These courses could include identifying pupils with special needs, preparing individual educational plans, and evaluation.

Two respondents said that there are no programmes which play a specific role during in-service training in equipping mainstream teachers to teach pupils with SEN. They emphasised, rather the role of teachers trained in special education, as sources of help for mainstream teachers. Some suggested that a diploma course in Special Education be set up, covering different disabilities (auditory, optical, SEN, mental disability and behavioural disorders) for mainstream teachers. Sometimes there are short training courses which are held for those who are interested in this field.

7. What more can be done by teacher training institutions and agencies to prepare teachers for inclusive classrooms?

The responses to this question are summarised in Table 6.67.

Table 6.67

Teacher trainers' perceptions of potential role of teacher trainer institutions/agencies in preparing teachers for inclusive classrooms

Response	Number
Training in special department	4
Planning programmes	2
Introducing new curriculum topics	3
Preparing teachers to understand the concept of inclusion	1
Seminars for parents and teachers	3
Co-ordination/co-operation between agencies	2

All respondents said that teacher training institutions and agencies can do more to prepare teachers to teach pupils with SEN. They can play an important role by:

- Establishing new sections for special education in faculties of education in Sudanese universities (4 respondents); indeed, one interviewee asserted that there is already an important trend in this direction, with a new department to be opened next year.
- Applying suitable and comprehensive plans in the field of SEN (2 respondents).
- Carrying out seminars related to special education, which include parents and teachers (3 respondents).
- Increasing training programmes in the field of teaching pupils with SEN (one respondent).
- Adding new curriculum topics to existing training (3 respondents).

However, in the view of one respondent, *"the teacher of SE is the basis of the special educational process"* so the role of teacher training institutions, in his perception, was initially in the training of specialist teachers who would support mainstream teachers.

8. What are the problems and constraints that face provision of training programmes in the area of SEN?

The problems and constraints identified by respondents are summarised in Table 6.68.

Table 6.68

Teacher trainers' perceptions of problems and constraints in SEN training

Problem	Number
Shortage of specialist staff	2
Lack of interest in training in this area	2
Teachers inability to attend courses	1
Narrow-mindedness, regarding specialization	2
Providing adequate follow up/evaluation	1
No constraints	3

Eight respondents identified a variety of problems and constraints in the way of providing training programmes in the field of SEN. These problems include:

- Insufficient commitment of money and effort (one respondent).
- Lack of specialists able to prepare and carry out training programmes on SEN (2 respondents). In this respect, one interviewee claimed, *"There is a world-wide problem"*.
- Inability or unwillingness of some teachers to attend training courses in the field of Special Education (3 respondents).

Two interviewees ascribed such problems to narrow-mindedness about specialisation. As one interviewee argued, *"Every teacher thinks that he is a professional in his field and does not need to acquire a new knowledge, as a result, he does nothing"*. In addition, the Sudanese system of employment does not follow the principle of integration between educational programmes and services. As a result, *"everyone works individually and people are unwilling to increase their educational responsibility"*. According to another interviewee, this kind of narrow-mindedness extends even to some teacher trainers: *"There are people who object to giving SE subjects to mainstream teachers. They think that they do not need these subjects"*.

Three respondents, however, claimed that there are no problems or constraints in the way of providing training programmes in the field of SEN.

9. What should be done pre-service to prepare teachers for teaching pupils SEN?

Teacher trainers' suggestions in this regard are summarised in Table 6.69.

Table 6.69

Teacher trainers' suggestions for pre-service training

Suggestions	Number
Open new department of Special Education	3
Improve existing curricula	4
Survey	1
Nothing needed	2

All respondents but two highlighted a need to prepare training programmes to prepare teachers to teach pupils with SEN. This can be done by increasing the capability of special education departments to play their role in this field properly. Three respondents emphasised the desirability of establishing departments of Special Education in all Sudanese universities to allow students to study for BA degrees in the fields of SEN. Four respondents suggested enhancing existing curricula by adding new subjects in the field of SEN, or including a more practical orientation.

The two respondents who thought nothing more need be done, pre-service, to prepare teachers for teaching pupils with SEN held this view for different reasons. One thought the present training was adequate. The other clearly favoured a continuation of the present approach, where explicit training related to pupils with SEN is reserved to the Special Education programme, and thought it was not feasible or desirable to include such preparation in the general programme followed by intending mainstream class teachers. After emphasising the kinds of individualised and intensive intervention needed by pupils with SEN, he argued that *"the general programme cannot present these elements"* because it would need many course units and make the course too long. He further suggested that it is impractical for teachers in a mainstream class of 30 or more pupils to provide pupils with SEN with the sort of intensive, specialised intervention needed, even if they were trained to do so, so he thought in practice, pupils with SEN would receive the help they needed from a specialist teacher, rather than from the mainstream teacher.

10. What should be done in-service to prepare teachers for teaching pupils with SEN?

The responses to this question are summarised in Table 6.70.

Table 6.70
Teacher trainers' suggestions for in-service training

Suggestions	Number
Training courses/workshops/lectures in relevant competencies	5
Diploma programmes in Special Education	2
Supervision/evaluation	3

Interviewees identified several themes for teacher development in this area. Two said that teachers need specialised training programmes to teach pupils with SEN, leading to professional diplomas

or certificates in the field of SEN. Others called for courses, workshops and lectures covering such matters as methods of teaching and ways of modifying behaviour (6 respondents). Three emphasised the need for supervision of teachers, and evaluation of training outcomes.

It was noticeable, however, that some interviewees did not clearly differentiate between questions 9 and 10 and there was a tendency to speak in terms of a generalised need for training, without identifying specific training needs. Only one respondent made a specific suggestion that teachers should be trained to use up-to-date instruments and measurements in the field of special education, for example, hearing and visual SEN, and learn about diagnosis and classification of children special needs.

Interestingly, another interviewee suggested that before more could be done in the way of in-service training, there should be *"a survey concerning teachers' opinions about suitable times and places for training courses"* - one of the objectives that will be served by the present study.

6.4 Summary

The foregoing report shows that the teachers who participated in the questionnaire survey varied widely in age and experience, and had obtained a variety of qualifications, though just fewer than 10% did not have a specific education qualification and only five teachers (2.9%) had an SEN qualification. Very few teachers other than these recalled receiving any pre-service training in teaching pupils with SEN, and only three respondents had received in-service training in this area.

Mean scores on the dimensions of competencies and related training needs were generally moderate, reflecting a wide range of opinions on teachers' part, as to their preparedness to cope with SEN, and the kinds of training they would need. In general, teachers were most confident of their personal skills (in which they saw little need for training) and least confident in their curriculum adaptation abilities. Some had negative attitudes towards teaching pupils with SEN in mainstream schools; they felt uncomfortable about it, perceived it as not straightforward, and doubted whether it was appropriate.

Teachers' perceptions of their competencies and training needs generally did not differ significantly with differences in age or teaching experience, the only exceptions being competencies in use of resources (for age) and curriculum adaptation (for teaching experience). However, there appeared to be no differences related to teachers' qualification. In the two dimensions of Attitudes and Instructional Competencies, there was a significant difference in agreement with the competency statements between teachers who had experience of teaching pupils with SEN and those who did not, while for training need, significant difference was found in the dimensions of Assessment and Evaluation, and Planning, Organisation and Management of Instruction. There were no significant differences in either Agreement or Training Needs, between teachers from schools with different inclusion provision.

Teachers expressed interest in being given training opportunities. The mean scores were highest for consultation, observation of peers, and provision of training materials.

In interviews, supervisors, teacher trainers and teachers expressed opinions that teachers are generally inadequately prepared to teach pupils with SEN in an inclusive setting. Although some supervisors and teacher trainers asserted that in-service training in this area was available, most teachers said they were unaware of it, or considered it inadequate. Pre-service training in this area was reported to be largely available only to those student teachers intending to specialise in this field, although all supervisors and teachers said they had encountered pupils with SEN in mainstream schools. Interviewees in all three groups called for more training in relation to teaching pupils with SEN.

These findings will be discussed and interpreted in more detail, in relation to previous research and relevant literature, in the next chapter, where the research questions will be answered.

Chapter Seven

Discussion and Recommendations

Discussion and Recommendations

7.1 Introduction

In the previous chapter, the competencies and training needs of Sudanese mainstream basic schools teachers in relation to pupils with SEN were explored, from the perceptions of teachers, educational supervisors and teacher trainers. The purpose of this chapter is to draw together and discuss the information obtained from the questionnaire survey and key informant interviews, in the light of theory and previous empirical work, in order to draw out the implications, both for practice and for future research.

The main body of the chapter is divided into four sections, as follows:

First, in section 7.2 a discussion of the findings in relation to the literature is presented, in which each of the research questions posed in the at the beginning of this thesis is addressed in turn.

Section 7.3 summarises the difficulties and concerns in relation to inclusion of pupils with SEN in Sudan. Recommendations for strategies to enhance the training and support available to mainstream basic school teachers, to help them to cope with the demands made on them by the current trend to inclusion of pupils with SEN, will be presented in section 7.4.

A critical evaluation of the strengths and limitations of this study is presented in section 7.5.

In the light of the limitations of the current study and other issues raised during the course of the research, section 7.6 contains suggestions for future research, to build on the contribution of this thesis. The chapter ends with an overall conclusion to the research.

7.2 Discussion

In this section, findings from the various elements of this research, both theoretical and empirical, are brought together in order to answer the research questions set out at the beginning of the thesis.

The overall conclusion of the study that made a genuine contribution to knowledge is that that the vast majority of teachers are open to inclusion. This represents a great opportunity for change. The change could be obtained by fully utilising the huge human resources currently exist to support inclusion. Research evidence shows that teachers' attitudes were the "biggest hurdle to overcome"

in relation to inclusion (Catlett, 1999, p 138) and that attitudes can be acquired and modified by training. Masteropieri and Scruggs (2002) suggest that teachers' attitudes towards inclusive practices are conditioned to the degree to which they see themselves as competent to meet the needs of children with SEN. However, teachers in Sudan have shown positive attitudes to inclusion and to children with SEN despite the fact that they were not trained or prepared for inclusive education.

Before addressing specific research questions, however, it may be appropriate at this point to draw attention to two issues which have a bearing on several of the results from the study, namely, the model of inclusion adopted in Sudan, and the philosophy underlying educational practice.

As regards the model of inclusion, it is not the "full" inclusion envisaged by, for example, Ainscow (2006). As the medical model (where SEN provision is based on clinical labels) is dominant in Sudan, most pupils with SEN who attend education are taught in segregated institutions. However, two levels of inclusion were found among the participating schools: in two schools, pupils with SEN were taught in regular classes with the provision of supporting services in the form of a resource room, corresponding to level II in Deno's (1970) model and level 3 in Cope and Anderson's (1977) model, referred to in Chapter Two (section 2.5). In a further two schools, pupils were taught in a full-time special class, except for Art and PE, where they were taught alongside their peers without SEN. These arrangements correspond to levels III/IV in Deno's model and 4/5 in Cope and Anderson's model. The other two schools had no special facilities or programmes for pupils with SEN, implying that if they contained pupils with SEN, such pupils would be fully included in the mainstream class, without additional support. In such an arrangement, ideally, the needs of pupils with SEN would be met through flexible work arrangements, curriculum adaptation, varied teaching strategies, peer support, and a problem solving approach (DfES, 2001b; Ainscow, et al, 2004). In fact, it is not possible to know with any certainty whether there were any pupils with SEN in these schools, because of teachers' acknowledged difficulty in identifying whether a child has SEN. For these two schools, then, it is not possible to comment on what level or kind of inclusion was achieved by pupils with SEN. In those schools with special programmes, it can be said that in terms of Warnock's (DES, 1978) classification, pupils with SEN had locational and social, but not functional integration, and there

was certainly no indication in any of the schools of reform and restructuring of the school as a whole, as advocated by Mittler (2000).

As a result of the particular models of inclusion adopted, very few of the surveyed teachers had taught children with SEN - or perhaps it would be more accurate to say few were aware of having done so. In this respect it is interesting to note that the Sudanese definition of SEN (Ministry of Education 2004) may lead teachers to assume that children with SEN are by definition those placed in special classes; such an effect, as noted in Chapter Two (section 2.2.), is one of the reasons why Booth et al. (2000) reject the use of 'special needs' terminology.

Related to this attitude is an educational philosophy which, despite the rhetoric of policy (Abdelkarim, 1999) remains in practice preoccupied with the memorisation of academic content (see Chapter One). Such an orientation, according to Epstein (1984) disadvantages some children and leads to their being labelled as having SEN. It may be that the academic preoccupations of educational philosophy lead to some children being placed in a special class (or, as revealed in the researcher's exploratory inquiries and indicated in Chapter One, withdrawn from mainstream schools in favour of other forms of education) who might otherwise have been fully included in the mainstream.

These issues, as will be seen, have wide implications and may help to explain the research findings in relation to almost all of the research questions. They are likely to have a bearing on the attitudes of teachers towards pupils with SEN, the skills and knowledge they perceive themselves as having, to include such children (Q 1); the relationship between teachers' competencies and their professional characteristics (Q2); the amount and kind of support provided (Q3); the kind of training given to both pre-service and serving teachers (Q4); perceptions of which competencies are needed by teachers and the components of the training needs that teachers express (Q 5); and the need for further training in SEN (Q6)

The issues of models of inclusion, diagnosis and definition of special needs, and their implications for teachers' areas of actual or perceived responsibility, in addition to the Index of Inclusion (Booth and Ainscow, 2002), underlie the whole of the research findings.

These, and other issues that emerged through the study, will now be explored in relation to each research question in turn.

7.2.1 What knowledge, skills and attitudes do teachers currently have - and not have - regarding teaching children with special educational needs?

This question was answered mainly through asking teachers in the survey questionnaire to rate their knowledge, attitudes and skills. There was no independent observation of such competencies, because of the difficulties of constructing and implementing an objective measure of competencies (see Chapter Three), particularly as this is a newly explored area in Sudan. Nor were educational supervisors asked directly about teacher competencies. Very few supervisors were interviewed, and they varied greatly in their spheres of expertise (two, for example, had specific training and experience in relation to SEN but the rest had not); and in the number and types of schools they visited (some supervised intermediate and secondary schools as well as primary schools for example). They might therefore be expected to have very varying perceptions of teacher competencies, depending on their own knowledge in relation to SEN, and on the different contexts of their observations. Thus, this research has focused on competencies as perceived by teachers themselves, in the light of their day-to-day experience.

Of the ten competency dimensions explored, the one in which teachers were most confident was Personal Skills such as self-confidence, maturity, flexibility and willingness to learn from experience. It may be that this was, in part, because these are general personality traits. A teacher might, for example, perceive himself as a generally self-confident person, irrespective whether he had ever been called upon to demonstrate that in a situation involving pupils with SEN. Similarly, in the UK the Standards for SENCOs list personal qualities which are said to be attributes of all effective teachers (Teacher Training Agency, 1998). In contrast, teachers might be expected to have less confidence in competencies more closely connected with teaching children with SEN, especially if they have not taught such children (most of the sample said they had not) and/or see teaching such children as a "special" area.

Another explanation for the high level of confidence in Personal Skills, however, may be the influence of religious values, which places strong emphasis on the development of desirable personal qualities. This emphasis permeates the whole of the education system (see, for example, the educational objectives set out by the Committee on Educational Policy (2004), quoted in Chapter One of this thesis). Islamic Studies is part of the preparation of all teachers, irrespective of their teaching specialism. In this respect, it is interesting to note that the area of knowledge in which teachers rated their competence most highly was awareness of their ethical responsibilities, which may, similarly, be an outcome of the Islamic emphasis in their training and in educational policy.

Religious values may also have contributed to the very positive personal attitudes towards pupils with SEN expressed by the teachers; the highest ranking items in the attitude dimension were those indicating that it is worthwhile and important to work with pupils with SEN. The lowest ranking in this dimension was the more policy-related one concerning the appropriateness of including pupils with SEN in the mainstream classroom. Although almost 70% of the teachers surveyed considered it important to work with pupils with SEN, however, just over half felt uncomfortable with doing so. This contradicts with the Sudanese religious and social values, however indicates the impact of lack of teachers' preparation for inclusive education on their attitudes towards inclusion and children with SEN.

Moreover, seven out of the ten educational supervisors interviewed suggested that teachers do not help pupils with SEN and display attitudes of impatience and frustration towards them. Such attitudes are consistent with those found in previous research: teachers who are new to the idea of inclusion are reported to be apprehensive (Gearheart et al., 1995); to show frustration (Seigel, 1992), and to have reservations about including children with SEN in the mainstream (Scruggs and Mastropieri, 1996). These negative attitudes, however, according to these authors, are related to lack of experience, exposure and confidence in relation to pupils with SEN. Hegarty et al. (1981) report that attitudes become more positive over time; similarly, Mosnid (2008) reported that Sudanese kindergarten teachers developed better attitudes towards pupils with SEN once they had experience of inclusion. Positive attitudes to all children, including those with SEN, are important

contributors to effective inclusion (Stoll and Sammons, 2007; Ainscow, et al, 2004; Booth et al., 2000).

The positive personal attitudes found in this study constitute a good foundation that can be built on through experience and training as the inclusion programme progresses. It is obvious that teachers are willing to make the inclusion policy implementation work even though no proper preparations were made. Thus, teachers could be the starting point for a comprehensive and well established implementation programme as will be discussed later in this chapter.

The Assessment, Evaluation and Recording dimension was one in which there were comparatively high levels of "not sure" responses. Particularly important in this dimension is the response related to identifying need (question 10), which was ranked third in the dimension. Fewer than half the teachers (about 46%) were sure that they could identify potential special educational needs. In the UK's new Code of Practice (DfES, 2001a) the first principle is that "a child with special educational needs should have their needs met" (p. 7). Clearly, before this can be achieved, the need must be identified. Teachers' need for this important competency of identification of SEN was endorsed in the interviews, by all three groups.

Regarding the more detailed assessment of the needs of pupils with SEN, teachers had confidence in their ability to construct a pupil profile generally - this was the question ranked higher in the dimension. Moreover, the highest proportion considered they had the ability to assess the progress of all children, including those with SEN (question 12). This was the first ranked competency. These responses are encouraging in relation to an inclusive view of education, in which the learning needs of all children are met.

In the area of Planning, Organisation and Management of Instruction, teachers rated most highly their competencies in overall classroom organisation. This is helpful for inclusion; as noted by Stakes and Hornby (2000), good classroom management strategies "are a pre-requisite for a teacher in any situation, and for those working with SEN they cannot be emphasised too much" (p. 66). On the other hand, teachers expressed lower competency in the skills to plan and instruct flexibly. Flexibility is an important competency for inclusion, as highlighted by

Ainscow (2005), who emphasises the need for teachers to improvise and modify plans and activities to stimulate the participation of all pupils and personalise the experience of the lesson for pupils. Flexibility is also a key theme in the Index for Inclusion (Booth et al., 2000); for example in Dimension C.I.1 (p 70), Orchestrating Learning, the first indicator is "lessons are responsive to student diversity". This requires that teaching to be planned to support learning of all children attending the school rather than to deliver the curriculum; and the curriculum materials should reflect the background, experience and interests of all children. The curriculum itself should be adapted to accommodate the different needs of all children to ensure their full participation in the classroom activities.

Teachers had particularly low perceptions of their abilities in relation to curriculum adaptation; only about 30% felt able to assess the suitability of curriculum materials, and fewer, about 20%, felt able to develop appropriate curriculum materials.

This may be a reflection of the low level of opportunity and encouragement, within the Sudanese education system, for teachers to use such skills, even in relation to children who do not have SEN (see Chapter One). The tendency in developing countries for curriculum planning to be centralised to a degree that inhibits teachers from taking personal risks by experimenting with what is possible in the classroom, has been noted by Heywood (1987). He comments that, if the general expectation among teachers is for all change to be generated from the centre, they are likely to play safe and wait to be told what to do.

Nevertheless, even within the framework of a national curriculum - perhaps especially so - there is a need for individual adaptation. One of the principles of the Code of Practice (DfES 2001a) is giving all pupils full access to the curriculum, while in the Index for Inclusion (Booth et al., 2000), indicator C.I.2. is "Lessons are made accessible to all students". One of the concerns expressed by, for example, Hornby (1997) and Dyson (1998) is that children with SEN who are included in mainstream classes are forced to follow an inappropriate curriculum, which undermines their perceptions of self-efficacy and effectively segregates them.

In this connection, it is interesting to note that, in the dimension of Instructional Competencies, although teachers felt able to analyse concepts, they saw themselves as having lower competence in developing an instructional sequence. This finding, together with those in previous dimensions related to Planning, Organisation and Management of Instruction, and Curriculum adaptation, may all be seen to be underlain by the issue of flexibility. Since, in the Personal Skills dimension, teachers saw themselves as flexible and willing to learn, it is interesting to reflect on how far any lack of flexibility in response to SEN is a personal attribute, how far it is a matter of learning specific skills and techniques, and how far it is a policy issue regarding the extent of teacher autonomy. Ainscow (2006) highlights the need for teachers in an inclusive setting to have sufficient autonomy to make flexible decisions as circumstances require.

The characteristics of the Sudanese education system may also go some way towards explaining teachers' perceptions of difficulty with the social integration of children with SEN (question 26). A similar difficulty was observed in the exploratory phase of the study (Chapter Four). The reductionist paradigm (Poplin and Stone, 1992) tends to promote an individualistic learning structure where success depends on one's own efforts, motivation is extrinsic, based on achieving criteria and receiving rewards, and people who are perceived to be different are disliked (Johnson and Johnson, 1991). These features have been said to characterise teaching and learning in Sudan (Al-Haj, 2008). A co-operative learning environment (Sapon-Shevin, 1995) is said to be more conducive to social integration.

Social integration is central to inclusion, and a major part of its rationale, as expressed, for example, in the Salamanca Statement (UNESCO, 1994), and in the emphasis by Pearpoint and Forest (1992) on the 'AB' of Acceptance, Belonging and Community. There is evidence from the interviews that some success with social integration of pupils with SEN is being achieved in the schools that have special programmes, by the inclusion of children with SEN with their peers, at recreation and mealtimes. This finding is in line with the assertion of Hegarty et al. (1981) regarding the importance of children with SEN being given opportunities to join in normal behaviour patterns. Effective inclusion would need to build on such successes and find ways of encouraging the social integration of pupils with SEN, in the classroom as well as during recreation.

In relation to Use of Resources, it is a very positive sign for inclusion that teachers recorded such a high level of recognition of the importance of involving parents. One of the characteristics of effective schools, according to Stoll (2007) is the involvement and support of parents and the local community. Similarly positive is teachers' perception of their competence in communication with parents. Fewer teachers, however, were confident of their skills in communicating with colleagues (question 38) and other professionals (question 39). These are competencies that are important in support for inclusion, as highlighted in the Index for Inclusion (Booth et al., 2000) and need to be developed further.

7.2.2 Are there significant relationships between teachers' knowledge, skills and attitudes and their personal or professional characteristics, such as age, teaching experience, and previous SEN training?

Most of the research on SEN contains little analysis of relationships between personal/professional variables and competencies. Some differences have, however, been reported in relation to attitudes. Catlett (1999) in the USA found older teachers to be less flexible than younger ones in attitudes towards pupils with SEN. Also in the USA, Larrivee (1981) found evidence of significant differences in teacher attitudes in relation to a number of variables including age, gender, qualification and experience. There is also qualitative evidence of more favourable attitudes following experience of teaching pupils with SEN (e.g. Ahmed, 2000).

In contrast, few such relationships were found in this study. Teachers aged less than 30 years had the highest competency (level of agreement) scores for all dimensions except Counselling, but the difference reached the level of statistical significance only for Use of Resources. Despite the fact that teachers in this study had qualified under a variety of different systems, many of them having trained before teaching was made a graduate profession, no significant difference was found, among teachers of different qualifications, in their perceptions of their competencies. This suggests that despite successive initiatives to modernise and upgrade teacher training, there has been no impact on preparedness to teach pupils with SEN. This finding is consistent with teachers' reports of their training background in the questionnaires, and with the comments made in interview by all three groups of respondents.

Consistent with previous research, the variable found in this study to be most strongly associated with differences in perceived competencies and training needs was experience of teaching children with SEN. This was significant in relation to teachers' perceptions of their attitudes and instructional competencies and to their perceptions of their training needs in Assessment, and Planning, Organisation and Management of Instruction. In each case, teachers who had experience of teaching pupils with SEN had more favourable perceptions. This finding supports the qualitative evidence of positive effects of experience with pupils with SEN reported by Ahmed, et al, (2008). Hegarty et al. (1981) and Catlett (1999) similarly reported teachers' development of more positive attitudes to pupils with SEN over time, as they gained experience of interacting with them and their initial feelings of intimidation were overcome.

The fact that experience with SEN emerges as the factor that has most impact on teachers' perceptions of their competencies suggests the importance of teachers having opportunities to gain such experience, perhaps through "shadowing" colleagues, and through appropriate placements as part of teacher preparation programmes. Collaboration with experienced special educators was one of the factors mentioned by Catlett (1999) as contributing to teachers' increasing confidence in their ability to work with children with SEN, and would be consistent with the expressed preference of teachers (Table 6.31) for individual help from specialist teachers. As regards pre-service placements, Garner (2000) has, as indicated in Chapter Two, drawn attention to the need for trainee teachers to have mandatory and structured opportunities to experience special/inclusive education in practice, and Mittler (1992) called for teacher preparation for SEN to include a practical placement of this kind in order to equip teachers with the experience needed for inclusion. It seems likely, moreover, that simply through having children with SEN in ordinary classrooms, teachers will over time develop confidence in teaching them (Catlett, 1999); however, experience alone should not be regarded as a substitute for ongoing, structured, supported opportunities to acquire and develop core skills (Garner, 2000).

7.2.3 What kind of training and support in teaching children with SEN is currently available?
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According to Scruggs and Mastropieri (1996), in order to teach pupils with SEN, teachers need systematic, intensive training in the form of:

- a) courses related to SEN as a requirement of pre-service certification;
- b) in-service programmes and;
- c) on-going consultancy.

Jacobson and Sawatsky (1993) went so far as to consider the availability of INSET and consultative support as determinants of teachers' willingness to teach pupils with SEN. From the research findings, however, it appears that none of these sources is sufficiently, reliably and effectively available to Sudanese basic schools teachers.

Regarding pre-service training, it was indicated in Chapter One that only one of Sudan's 27 universities currently has a department of special education. Moreover, the research interviews revealed that the teaching of pupils with SEN was not covered regularly or systematically in general preparation programmes; it might not be covered at all; if the topic is available, it is not compulsory; and usually little time is given to it. In-service training was said by educational supervisors and teacher trainers to be available, but many of the teachers interviewed were not aware of it.

As far as on-going consultancy is concerned, two potential sources may be identified: specialist teachers (i.e. qualified special education teachers, whether in special units in the mainstream school, in special schools or in the counsellor teacher programme (see Chapter One) and educational supervisors. Some of the teachers interviewed indicated that if they faced a problem in relation to a pupil with SEN, they consulted specialist teachers; responses to the last section of the questionnaire, on preferred kinds of training, also indicated that this was a popular option. This tendency for expertise to be seen as the preserve of a few qualified special education teachers is consistent with the pattern of separate training which Ainscow, (2000) suggests is typical of segregated provision - which was the norm in Sudan, as in many other countries, until a few years ago. Such teachers may indeed be a valuable source of information and support, but whether this potential is realised will depend on the amount and quality of communication among colleagues.

In this respect, the finding that, in the Counselling, Communication and Collaboration section of the questionnaire, almost two-thirds of respondents were unsure of, or perceived they lacked the ability to communicate with colleagues, suggests this source of support may not be as well-used as could be desired. Teachers rated slightly more highly their ability to communicate with other professionals, and it may be that they view specialist teachers in this category, rather than as colleagues, because of their separate role within the school. Nevertheless, almost half the teachers lacked confidence in their ability to communicate with other professionals. These findings suggest that collegial links within and between schools would need to be strengthened, to enable teachers to obtain consultative support from more experienced colleagues.

The other potential source of consultancy is educational supervisors. However, the majority of supervisors interviewed had themselves not had SEN-related training or experience and thought they had insufficient knowledge to support teachers. As an added difficulty, some were not supervising their own subject specialism. The weak role that supervisors can play in supporting inclusive practices in schools, in the Sudanese context, is in sharp contrast to the situation in the USA described by Federico et al. (1999) whose inclusion project was closely supported by two experienced educational supervisors.

Lack of support and training is identified by Thomas (1985) as an important factor in teachers' lack of confidence to teach pupils with SEN. Given the obstacles currently facing Sudanese basic schools teachers in this respect, it is not surprising that the questionnaire responses revealed teachers' low levels of confidence in their competencies. This issue is discussed section 7.2.5.

7.2.4 What training, either pre-service or in-service, have the teachers had in competencies related to SEN?

Only 12 teachers out of 301 surveyed reported any kind of pre-service and in-service training in SEN, and three of these were teachers who had qualified specifically in this field. Moreover, three-quarters of teachers interviewed in the main study, and all those interviewed in the exploratory phase, had received no pre-service preparation in relation to SEN. Non-specialists who, in the questionnaire, reported having some SEN training had received at best a semester, and in some cases as little as one week. This situation is in sharp contrast to that in the U.K., for example, where preparation to teach all children, including those with SEN, is a requirement for qualification (DES, 1984).

Despite the trend towards inclusion, moreover, few teachers reported any in-service training in SEN-related competencies; in interviews it was suggested that teachers may not attend training, even if it is available, either because of lack of information, or because of its non-compulsory status. It appears that Truesdell's (1985) criteria for quality INSET (such as accessibility, continuity, comprehensiveness and integration into the overall educational structure) are not being met.

The research revealed some contradictions of perspective, within and between groups on the availability and efficacy of training. Teacher trainers, for example, disagreed as to whether the pre-service and in-service training currently available is adequate to equip teachers with necessary competencies. Moreover, they had very different views as to how long and how extensively inclusion has been practiced; such uncertainty would be likely to affect adversely their ability to provide relevant training.

There were also contradictions between teachers' perspectives and those of educational supervisors and teacher trainers, particularly regarding the availability of in-service training. This could suggest that training opportunities are not adequately communicated to teachers (some, in interview, said they had 'not been informed' or 'not heard of any training'). Another explanation may be that, because of a narrow-minded approach to specialization - asserted by one of the teacher trainers - training may not be offered to all who may desire or need it. This possibility may be related to the definition issue mentioned earlier. Warnock (DES, 1978) estimated that 20% of

all pupils have SEN, and educational supervisors' observations suggest the presence in Sudanese schools of all the categories of SEN mentioned in the U.K. Code of Practice (DfE, 1994). Yet, as indicated earlier, the Sudanese definition perhaps leads to thinking solely in terms of specialist provision for SEN; certainly some teachers in this study "blame the educational system" for allowing children with SEN into the mainstream, regardless of whether the system is ready to meet their needs and help them develop their skills or not. The Sudanese definition of SEN admits the need for adapted education, but it is not necessarily expected that the adaptation will be made by the class teacher (similarly, Dyson, 1998, links the deficit model with special schools and remedial education). Thus, it may be that teachers have not been offered training in the past because it was thought they did not need it, as children with SEN would be catered for in special programmes taught by specialists. At the same time, as Catlett (1999) observes, the absence of training may perpetuate attitudes among teachers that teaching pupils with SEN is "someone else's job".

7.2.5 What are the competencies (knowledge, skills and attitudes) needed by teachers to enable them to meet special educational needs?

As noted in Chapter Five (Methodology), this question was addressed largely through a review of the competency literature, since the aim in asking this question was to establish a list of competency dimensions and questions as a basis for subsequent investigation of teachers' perceived competence and training needs. The competency literature was discussed in detail in Chapter Three.

As indicated in Chapter Three, the competency literature identifies a wide range of competency dimensions and specific knowledge/skills/attributes that are needed for effective teaching of pupils with SEN though inclusionists such as Ainscow, et al, (2004) and Epstein (1984) argue that the same competencies are needed for good teaching for all pupils. The Council for Exceptional Children list quoted by Polloway and Patton (2000) contains 107 separate items; other lists reviewed in Chapter Three typically contain from 30 to 50 items (see, for example, Johnson, 1978; Sass-Lehrer and Wolk, 1984 and Hornby et al., 1991).

Some information about the special knowledge, attitudes and skills needed by teachers to cope with pupils with SEN as perceived in the Sudanese context was obtained from educational supervisors and teacher trainers, although, since only a small number of people were interviewed, the information obtained from these sources is limited. The more extensive information from the teacher questionnaire survey did not ask teachers to identify needed competencies, but asked how they perceived their own competencies. The results are discussed in Section 7.2.4. In asking teachers to identify training needs (discussed in depth in 8.2.6.), however, the questionnaire to some extent explored their views of what was needed. As will be seen, they attached importance to knowledge of learning theories and their application to pupils with SEN (Table 6.10) and to the ability to identify potential special educational needs (Table 6.12). In the area of Planning, Organisation and Management of Instruction (Table 6.13) the responses show a perceived need to be able to assess the effectiveness of materials and activities, to organise a flexible programme of instruction and to plan/prepare special materials and lessons. A particular concern was the need to facilitate the social integration of pupils with SEN, an issue that was also raised by teachers in the exploratory phase of the research (see Chapter Four). Teachers also expressed a strong need for training in the area of communication with other professionals (Table 6.18), suggesting that they saw this as an important competency.

Teachers' perceptions of needed competencies, as reflected in their expressed training needs, were supported by the interview responses of educational supervisors (Table 6.60) and teacher trainers (Table 6.64), all of whom thought teachers needed special knowledge, attitudes and skills to teach pupils with SEN in mainstream classes.

Educational supervisors suggested seven knowledge areas and skills: the ability to use a range of teaching methods, ability to identify SEN, knowledge of medical facilities, ability to provide information to families, psychological knowledge, testing ability, and ability to facilitate social inclusion. Each of these is consistent with elements contained in previous competency lists. Ability to use appropriate teaching methods flexibly was listed by Whitten and Westling (1985) and is emphasised by Ainscow, (2006); diagnosis was identified by Johnson (1978); Hornby et al, (1991) and Hammel (1999); knowledge of medical facilities is consistent with Whitten and Westling's (1985) category of knowledge of community resources; ability to provide information to

families is mentioned by, for example, Sass-Lehrer and Wolk (1984) and Polio way and Patton (2000) while Hammel (1999) noted the need for teachers to facilitate social inclusion of children with SEN.

Similar competencies were mentioned by teacher trainers who particularly focused on the need for knowledge about SEN. Moreover, half of them highlighted the need for positive attitudes towards pupils with SEN. The importance of attitude was similarly asserted by Avramidis, et al, (2002) while Sass-Lehrer (1986) gave more specific examples of positive teacher attitudes ability to develop a rapport with pupils with SEN, and ability to promote their positive self-concept. Both these abilities could be seen as part of the 'enabling environment' with which attitude is linked by Jacobsen and Sawatsky (1993).

Several other dimensions of required competencies, identified in the literature, were, however, either not mentioned at all, or mentioned by only one or two interviewees: Assessment (Whitten and Westling, 1985); Planning, Organisation and Management of Instruction (Sass-Lehrer, 1986); Personal Characteristics (DfE, 1994; Lerner, 1997); Behaviour Management (Whitten and Westling, 1985); and Curriculum Adaptation (Hammel, 1994). All of these dimensions are implied by the role expectations of class teachers in the U.K. Code of Practice (DfE, 1994).

The fact that so few competencies were mentioned by interviewees compared to the many found in the literature, and so many major competency dimensions omitted, may partly be seen as a reflection of the centralised education system which gives teachers little or no autonomy in relation to curriculum and the planning, organisation and management of instruction. It also reflects a situation where, because inclusion is relatively recent in Sudan, training and administration for 'regular' and 'special' education were developed separately, so that even educational supervisors have little knowledge and experience in this field, as they themselves acknowledge.

7.2.6 Do participants perceive a need for teachers to receive further (or different) training in relation to SEN? If so, in what particular aspects?

With Sudan's increasing progress in implementing more inclusive education (Al-Haj, 2008), teachers will need to be prepared for more and wider ranging SEN in the classroom. Not surprisingly, then, all three groups surveyed expressed a strong need for mainstream teachers to receive more training, both pre-service and in-service, related to SEN. Such training is an essential pre-requisite for "responsible inclusion" (Vaughn and Schumm, 1995; Gains, 2001; Hornby, 2001).

Regarding the specific aspects in which training is needed, certain dimensions emerged from the questionnaire responses as being of particular concern to teachers.

They expressed most the need for training in relation to the Knowledge dimension. Within that dimension, the item scores show that teachers perceived most training need in relation to learning theories and their application (matching their low perception of competence (see 8.2.4.)). Although they have studied learning theories as part of their pre-service training, they lack confidence in their ability to apply them in relation to SEN. Previous researchers on teacher preparation in a Sudanese context (ADD, 2008) have criticised it for being overly theoretical in orientation, and suggested that student teachers need more guidance on and opportunities for the practical application of theory. The present finding is in line with such reports. It is also consistent with the point made in the previous section, regarding the importance of teachers' having practical experience with children who have SEN, a point emphasised by Garner (2000).

Interestingly, in interviews, Knowledge needs were the priorities most frequently identified by teacher trainers (Table 6.64), but their suggestions focused more on theory, "Knowledge of the concept of SEN", whereas 15 of the 20 teachers interviewed wanted to know how to apply knowledge "to meet the needs of" pupils with SEN.

The dimension that ranked second in terms of teachers' perceptions of training need was Assessment, Evaluation and Recording. Within Assessment, the greatest need was expressed for training to be able to identify SEN; a similar concern was raised in interviews, where half the teachers identified this as a training priority.

As indicated previously (section 7.2.4.) the ability to identify children's needs is fundamental to inclusion. In the UK's 1994 Code of Practice (DfES, 1994), for example,

identification of need was the first stage in a three-stage process of arrangements for meeting SEN, and it was a stage where the class teacher was given the main responsibility.

Assessment activities have a number of applications in relation to meeting SEN, for example, as an input to programme planning and placement decisions (Stakes and Hornby, 2000). In this respect it is notable that teachers' second ranked training need in this dimension was constructing a pupil profile. The fact that they wanted more training on this area even though it was one of the questions in the dimension in which they already felt more competent suggests that they regarded this as an important activity.

In the area of Planning, Organisation and Management of Instruction, teachers expressed training needs mainly in relation to three items: assessing the effectiveness of materials and activities, organising a flexible programme of instruction, and planning and preparing special materials and lessons. The second of these items received some support from two teacher trainers interviewed, who specifically referred to the need for teachers to be able to construct an Individual Education Plan, while the importance of teachers' acquiring and developing the third skill is reflected in the major role played by the use of visual and tactile teaching aids among the strategies reported in interview (Table 6.41), particularly by teachers who had received training in relation to SEN. All of these skills are important for implementing the philosophy of inclusion, which highlights the necessity of responding to student diversity (Ainscow, 2006).

There were, however, other skills in relation to response to diversity, in which teachers perceived their training needs much lower. They ranked lowest in the Assessment dimension their training need in relation to using evaluation outcomes to set and modify objectives. They also perceived themselves as having low need for training in relation to Curriculum Adaptation, even though as indicated previously, they did not rate highly their competence in this area. Moreover, in the Instructional Competencies dimension they rated low, the item, "develop an appropriate instructional sequence". These activities were rated as low training needs, however, teachers perceived themselves as highly competent in these skills, as we have seen. This raises the question whether teachers think the prescribed curriculum and text books leave them no need or scope for

carrying out these activities themselves. Educational supervisors and teacher trainers, however, both identified the flexible use of teaching strategies and methods as training priorities for teachers.

Although the questionnaire showed Instructional Competencies generally to be perceived as an area where there was low training need, teachers perceived themselves as needing guidance on task analysis (questionnaire question 18). Pupils with learning difficulties need learning to be broken down into short steps (Stakes and Hornby, 2000). However, the difference in priority attached by teachers to training in this item and the one on development of instructional sequence suggests that they may not have fully understood the reason for performing task analysis, and the link between analysis of the task and development of an instructional sequence on the basis of that analysis.

Little training need was expressed in relation to Management of Behaviour, overall. However, both questionnaire and interview responses indicated training need in facilitating the social integration of children with SEN. The importance attached to social integration within the inclusion philosophy is reflected in a number of indicators in the Index for Inclusion (Booth et al., 2000): for example, the Culture dimension of "Building Community", which includes making all pupils feel welcome, pupils helping each other, and relations of mutual respect; and the Policy element of arranging groups in a way that promotes social cohesion. Garner (2001), however, deplores what he considers the consistent failure of teacher preparation to provide significant input into the so-called "pastoral curriculum". Garner asserts the need for teacher training to cover this area by quoting Laslett's (1977) argument that any academic progression the pupils achieve "come about through achievements the children make in forming and sustaining successful relationships with others" (p. 111). Clearly, Sudanese teachers recognise this importance, and feel a need to learn more about how they can promote satisfying relationships and self-esteem among pupils with SEN.

Almost half the teachers expressed needs for training in relation to each of the items in the Use of Resources dimension. The Index for Education (Booth and Ainscow, 2002, p 5) argues that the minimizing of barriers to learning and participation of children with SEN involves mobilizing resources within the school and its communities. Indeed, resources availability and

the teachers' experience to utilize them is a great support for including children with SEN that saves time and effort on the part on the teachers as well as on the school.

Their need in relation to the item on parental involvement confirms the importance they attached to this activity in their Level of Agreement responses, and is consistent with the vital role envisaged for parents, as partners in the educational process, within an inclusive philosophy (DfES, 2001a). Access to community resources is also a key feature of inclusion, which sees educational inclusion as an aspect of wider social inclusion. Thus, one of the indicators proposed by Booth et al. (2000) is "Community resources are known and drawn upon". Teachers' need for help in this respect is consistent with concerns raised in the exploratory phase of the study, regarding both resources and social attitudes to pupils with learning difficulties.

Training needs were also expressed in relation to Counselling, Communication and Collaboration and specifically communication with other professionals. Skills in this area are needed for the multi-agency approach to meeting SEN advocated in, for example, the new Code of Practice (DfES, 2001a). Teachers' interest in this matter is confirmed by the interview finding that 16 of the 19 teachers favoured consulting a relevant specialist, either as a sole solution, or in conjunction with other strategies, if they had a problem in relation to a pupil with SEN.

Teachers expressed lower training needs in relation to communication with colleagues. This indicates that teachers may currently have good communication with their colleagues. This is a skill that is frequently emphasised in the inclusion literature; Stoll, (2007) considers teacher collegiality and development to be a characteristic of effective schools, while Booth et al. (2000) propose the indicator, "Teachers plan, teach and review in partnership". Teachers' low rating of training need in this area was not linked with a high rating for their competence. This raises the question why they did not perceive this as a training need, and whether there may be a lack of awareness of the potentially valuable role of relationships with colleagues as a source of support for inclusion.

Overall, the findings in relation to training need suggest that teachers need training in relation to several dimensions of teaching children with SEN, with particular attention to the identification

of such children, and to practical ways of applying teaching theory to respond flexibly to the diverse needs they may encounter.

7.3 Conclusions of issues and concerns arising from the Study

It is very important to point out that the study finding in relation to teachers' perceptions of their training needs has made a useful contribution to knowledge that can help fill the gap in the literature about teachers' perceptions. Teachers in Sudan who are the key players in implementing the inclusion policy in the country do not present a barrier to the implementation of inclusion policy. They are clearly positive towards including pupils with SEN despite the work overload, lack of preparation and training for inclusion, and lack of resources and support. This could be a start point to bring around change in inclusive education in the country by utilizing this huge resource to improve the current inclusive schooling in the country. This is also a positive situation which should be encouraged because if this motivation is lost, any plans to implement or expand policy of inclusion would fail.

Thus, an urgent attention towards their appropriate reward and professional development is crucial to ensure the success of the process.

In this section, the issues and concerns identified by this study in relation to Sudan's context of SEN will be summarized. Thereafter, recommendations will be made to draw the way forward for the country's implementation of inclusion.

- Urgent attention is also required in terms of teachers' professional education, as shown by the results from the questionnaire and interviews which demonstrated a definite lack of knowledge concerning the policy of inclusion, and as recorded by teachers in their written comments about their perceived needs for new skills. It was obvious that regular teachers consider themselves to be inadequately equipped to meet the needs of pupils with SEN, and become more self-confident as their professional development is allowed through in-service provision (see for example, Avramidis et al, 2000; Larivee, 1981; Mittler, 2000; Okpanachi, 1995). However, a foundation for all the in-service updating could be laid in all initial

teacher training courses. Hence, there should be a significant element of preparation in this respect before new teachers start their career.

- **Social awareness of inclusion policy**

The evidence from teachers' responses and literature on Sudan's context of SEN strongly suggests the need for raising the social awareness of the inclusion policy. Parents' current involvement is reported to be insufficient. Parents' involvement in the education of their children would help promote better relationship with the school. This includes parents of both children with and without SEN.

A campaign at national level should use all the available media to elaborate the values of SEN because schools do not operate in isolation and can only mirror what happens in society in general (Mittler, 2000). This will help policy of inclusion expand to include more children with SEN who are currently educated at segregated school or are not attending education at all.

An enormous effort should also be directed to raise the society awareness especially in rural communities about the rights of the disabled people in social and education inclusion. The situation of children with SEN in Sudan as discussed in Chapter One represents a major barrier not only to their education but also to their human rights. This awareness of SEN within the society should be raised through comprehensive social planning, policy and strategy.

- **Need for Improved Co-ordination/Co-operation Among stakeholders**

There is a great need for co-ordination and co-operation at the operational level. Teachers pointed out to the lack of co-ordination between schools and the Directorate of Special Education, the outcome of which was the lack of their awareness about the inclusion policy, lack of all sorts of support and resources.

There should be channels of communication between the Directorate of Special Education and schools. This can facilitate the flow of needed support and resource, and would help to identify the difficulties and the ways to improve the situation for the delivery of inclusion. Scarcity of financial and human resources on the part of the Directorate is responsible for the problems in this respect.

Similarly, teachers reported problems of co-ordination at the classroom level, where some difficulties in relationships with parents (as mentioned in 8.6.2.1) were encountered. For parental involvement to be effective, a national awareness raising campaign should be a long term aim. Meanwhile, school boards should establish a mechanism to involve parents in their children's education.

- **Flexible Curriculum**

Teachers called for the need to revise the existing curriculum so as to enable it to operate more flexibly. This observation has come directly from their experience of including pupils with SEN, and therefore it is a valid request. However, at the same time it is encouraging that teachers should be sensitive to their call for curriculum flexibility since it represents their belief that the school system should change to allow the policy of inclusion to be successful, rather than expecting the children with special needs to fit in with an established set of routines and requirements which were designed for children without such needs.

- **Lack of Implementation Strategy**

It is evident that inclusion is being implemented without any proper preparation. The problems identified so far, are indicative of a poor implementation strategy. However the policy of inclusion is good in itself, in the absence of a strong and appropriate implementation strategy, it will be impossible to achieve its aims.

Difficulties associated with poor co-ordination, lack of collaboration, lack of resources, improper recognition for teachers, suggest that before introducing inclusion into basic schools, a detailed study should be conducted of the demands of inclusion policy. Otherwise, the process would have negative effects on all those who are involved. Specifically, it has been shown that teachers, and curriculum issues, were not considered, yet these are arguably, the most important elements of implementation of inclusion. Therefore, a detailed evaluation of the implementation problems to date is required in order to produce an effective implementation strategy for the future.

- **Physical Resource Issues**

Arising from the lack of prior assessment of implementation needs is the immediate operational problem of school buildings which are not equipped to facilitate the inclusion policy.

Pupils with SEN are taught in the same school environment without any modification to the buildings to facilitate their learning and movement. As emerged from the study, another missing part is purpose-built recreation centres that would allow all children to meet and participate in certain activities, since social activities are seen as enhancing the self-esteem of pupils with SEN, and also function to develop tolerance among other children. The implication is that existing physical structures not only prevent access to parts of the academic curriculum, but also deny effective participation of children with certain special needs in extra-curricular activities that are deemed important in the socialisation process of all children. The demand for planning of new school buildings, and extensions to existing ones to suit all school children should be recognised as an important part on the success in implementation of inclusion.

Other physical resources, such as learning aids and teaching materials are extremely rare as to- date, only children with minor disability are accepted at basic schools and are taught with the available resources made for children without SEN. This is, perhaps not surprising given the lack of proper evaluation of the likely demand prior to implementation of the policy, it is entirely in keeping with the literature which emphasises the importance of supporting teachers with appropriate physical resources (Avramidis and Norwich, 2002).

- **Human Resource Issues**

The positive orientation to inclusion amongst the teachers in the current study, suggests that the request for more specialist human resources is a first step in their own overall learning process, that is to say, that with the opportunity to observe specialist teachers at work, this reflects the situations encountered elsewhere in the world when integration was in its early stages (see Gickling and Theobald, 1975). Allocating pupils with SEN in mainstream classrooms with teachers who have neither the knowledge, or skills to include them effectively, may well result in complaints from parents, and indeed from other children. Indeed, the teachers in this study believed that in-service training was their most pressing need. However, pre-service training in SEN should be included for new teachers as mentioned earlier.

In respect of the widespread comments regarding the need for more specialist teachers and the need to develop more skills in mainstream staff, the academic progress of children with special needs is clearly also dependent upon the expertise of those delivering the curriculum. There is a good opportunity that when the initial problems of implementation have been addressed, greater ability to manage children with special educational needs will eventually result in greater academic achievements on their part.

7.4 Recommendations for Practice

The findings of this study have highlighted the need of mainstream basic school teachers in Sudan for the competencies required to enable them to meet the needs of children with SEN. There is a need for a range of suitable training and advice to be available and accessible and known about, so teachers can avail themselves of it as and when they need it, and in the form that is most convenient and acceptable to them. With this consideration in mind, some recommendations are offered, and some others are made for the better provision of educational opportunities for children with SEN.

- An immediate move from the existing medical model of inclusion towards a responsible approach to inclusion. This requires that financial and qualified human resources should be available, for the Directorate of Special Education to ensure the success of the implementation policy. The directorate should be the only department responsible for the implementation and supervision of inclusion policy in the whole country. It should take over the role of educating children with SEN from other institutions that are currently involved in including children with SEN e.g. Ministry of Social Welfare, independent, charitable and private SEN institutions. The current situation of inclusion appears to be undermined by conflicting educational goals and requires urgent intervention from the Ministry of Education to resolve the existing overlap of power between the mentioned institutions and put things in the right direction.
- All initial teachers' training should include preparation for including children with SEN in the mainstream classroom, as a compulsory component, since the classroom of the future will not be comprised simply of able-bodied children. At present, only the University

of Khartoum has a department of special education, which is concerned primarily with the preparation of specialist teachers to teach in special schools, classes and programmes (see Chapter One).

It is not only the content of training that is important, however, but how it is delivered. The training should cover theoretical and practical issues of inclusion SEN. This requires a proper supervised practical placement where teachers can experience knowledge, skills and use of resources before they start teaching in mainstream classes.

Since teachers tend to teach as they themselves were taught, it is important that teacher preparation should provide models of good practice. It would therefore be desirable to model such methods to trainee teachers by incorporating them in the training process. It is also important for training teachers in methods of social inclusion of pupils with SEN.

Above all, teacher training should encourage critical reflection (Slee, 1999) as the stimulus to ongoing development of more inclusive cultures, policies and practices.

- More advanced in-service training should be designed for those teachers who have already developed some skills, to make them more competent, and thus add to the numbers of specialist teachers, which are insufficient at the moment. A cascade model of training might be considered, whereby one teacher in a school is nominated to attend a training event and then to pass on the information and ideas obtained, to their colleagues. Training of continuing professional development should also be made available to educational supervisors, teacher trainers and school counsellors to raise their knowledge in the field of SEN. Although principals and school counsellors were not an explicit focus of this study, they too should be provided with training as part of an integrated policy of inclusion.
- In-service training courses of varying length and format should be made available as part of a programme of professional development, to enhance teachers' skills and confidence in dealing with pupils with SEN, in the light of the trend to inclusion.

A basic distinction can be made between short and long-term courses. Short-term courses could consist of one-day workshops, short series of weekly sessions, or intensive programmes of, say, one to three weeks' duration, each covering topics, identified as training needs by teachers, supervisors and teacher trainers.

- Drawing on experience of training mainstream teachers in dyslexia and current involvement in designing teacher training programme in the area of SEN in Sudan, the researcher suggests a comprehensive model of SEN training syllabus for all basic school teachers in Sudan in order to enhance implementation of inclusion by utilizing the resources of teachers mentioned earlier.

The training should be available on pre-service and in-service basis in order to qualify existing and future teachers in the area of inclusion of children with special educational needs in mainstream schools and address the following issues:

- a- What are SEN?
 - b- Identification and support of pupils with different SEN e.g. gifted and disabled pupils.
 - c- Ways of meeting the needs of pupils with SEN e.g. segregation and inclusion.
 - d- SEN laws, policy and code of practice
 - e- Observation, testing and assessment e.g. using scales, statementing.
 - f- Using education technology and curriculum adaptation techniques.
 - g- Communication with parents and other parties involved in education and support of pupils with SEN. In addition to the above, special topics such as Arabic Sign language, could be offered, depending on identified local need. Opportunities should be made available for teachers to observe classes by teachers with experience in teaching pupils with SEN, as teachers expressed as their second training preference (Table 6.31) a wish for such opportunities.
- Within each region, teachers' resource centres could be set up, which would maintain a collection of information materials and teaching resources which teachers could borrow, to support their teaching of pupils with SEN.

- Teachers' third training preference (Table 6.31) was to receive materials such as books and videos. This finding was reinforced by the need for books and journals, expressed by the teachers interviewed (Table 6.40). It is also important for teachers to have access to suitable teaching aids to use with pupils who have SEN, but when asked about strategies used in teaching pupils with SEN, only specialist teachers mentioned such aids (Table 6.35). Indeed, lack of such resources in mainstream schools was one of the issues raised by the exploratory phase of the study (Chapter Four); moreover, resource constraints were mentioned by half the educational supervisors interviewed (Table 6.52). All these findings highlight the need for some mechanism for making resources available to mainstream teachers, as one of the requirements of responsible inclusion (Kidd, 1993). One possibility would be for such centres to be set up in universities, since they are likely already to have some resources which would be of interest and value to serving teachers. Moreover, the universities were the first institutions in Sudan to be opened to the Internet and would therefore afford the opportunity for teachers to make use of facilities such as on-line journals. Over the longer term, special schools, many of which will become redundant and be closed down as inclusion proceeds, may be developed into teacher resource centres.
- A task force should be established within the Directorate of Special Education with particular responsibility for conducting a continuing assessment of the implementation difficulties experienced so far and for developing solutions through a detailed implementation strategy, which addresses the physical structure of schools, and the general issues of material resources. The outcomes of the current research could form an input to the assessment. The Directorate should also identify how the inclusion policy will expand in the future, and second selected staff and teachers for research projects in environments where inclusion is well-advanced in these areas, so that known expertise can be considered before bigger changes are introduced.
- The schools which have special programmes taught by qualified special needs teachers could act as local resource centres. This approach would be in line with Booth's (2000) suggestion that mainstream schools can be helped towards inclusion by arranging

learning centres in clusters, to share knowledge and resources. A network within schools should be established whereby teachers with experience of teaching children with SEN can exchange ideas, experience, and teaching materials. This would promote a self-help attitude amongst practitioners, and contribute towards the development of a research community in the field of special education. This network should be supported by the Secretariat for Special Education which should host a national conference on an annual basis to facilitate the development of ideas, spread of expertise, and raise awareness.

- Overall, there should be a competitive salary and rewards system for mainstream teachers who at this point hold the entire burden of delivering the educational service to children with SEN without the basic preparation and resources. This will preserve the current positive motivation of teachers towards the inclusion policy and will help them resist the tempting private sector and abroad work conditions.

7.5 Critical Evaluation of the Study

This research has made a useful contribution to the international literature about Sudan's context of SEN and the concerns of Sudanese basic school teachers in relation to their perceived competence to include pupils with SEN in mainstream classes, and the training and support they may need to help them to cope with the challenge of inclusion. Additionally, it provided insight about researching the country within complicated political and social difficulties as an insider researcher.

A particular strength of the study has been the high rate of response obtained from teachers. This has very positive implications for the representativeness of the sample and therefore increases confidence in the validity of the findings. The high response rate is also an important indication of teachers' interest and co-operation. It suggests a high level of concern and engagement with the subject of the research, from which it may be inferred that any initiatives to provide additional training and support in the area of teaching children with SEN are likely to be favourably received.

As further evidence of the validity of inferences drawn from the findings, it is noteworthy that the numbers of "not sure" responses were generally not high, the majority of them confined to the two dimensions of Assessment and Planning. Teachers were giving considered responses, not seeking refuge in the neutral option.

Another strength of the research is its consideration of multiple perspectives. Although the main focus has been on teachers, as the people most directly affected by the inclusion in the mainstream of pupils with SEN, it has also obtained insights from teacher trainers and educational supervisors, which set the teachers' responses in context and provide insights into the wider training and administrative issues raised by inclusion. These groups will inevitably have key roles to play in any attempt to address teachers' support and training needs, and it is therefore important, both to raise their awareness of teachers' perceptions of their needs, and also to take account, in planning any new initiatives, of the understanding gained from such groups regarding resource constraints, areas of responsibility and expertise, and the like.

Nevertheless, this research, like any other, has its limitations, with regard both to its objectives and to its methods, which need to be borne in mind in interpreting the findings, and which point to the need for further research. Because the policy of inclusion is new in Sudan, any research in the area of special educational needs must be limited by the fact that the experience of any mainstream teacher is short and that in its pioneering stages, the policy of inclusion is providing different types and levels of exposure according to the kinds of special need being catered for.

A major limitation of the research was that the survey was confined to teachers' perceptions; no objective measurement of competencies was attempted. Thus, it is not possible to know whether teachers actually have the competencies they think they have, or whether they use them in practice. There were, as indicated in Chapter Four, good reasons why it was not feasible or desirable in this exploratory study to attempt to measure competencies. Nevertheless, the absence of any such measure raises questions, especially in view of contradictions in some responses, for example, those related to parental involvement, which suggest a need for measurement in the future.

There are also limitations related to the research population. As the present study was self sponsored, this created time and resource constraints which led to the decision to carry out the research in a single state. As indicated in Chapter One, the Sudanese education system is in most respects homogeneous, due to the highly centralised decision-making policy. However, there may be regional differences in the incidence of pupils with SEN, and in the resources available to schools. Therefore, it cannot be known how typical is the sample of this research in terms of their experience of children with SEN or their perceptions of their competencies and the difficulties they face.

It is also important to bear in mind that, although this research encompassed three distinct groups within the education sector, other groups with interests in relation to the education of pupils with SEN were not included within its scope. Because the survey was confined to the public state school system, it did not include teachers in private schools, nor did it include the various charitable institutions and organisations which, as indicated in Chapter One, have an important role in educational and social provision for individuals with SEN. These were considered outside the scope of the present study, as their provisions are segregated rather than inclusive. Nevertheless, they constitute an important pool of expertise and experience, on which it may be useful to draw in the future.

Another limitation of this study was that it did not look closely at gender and age of teachers. This would have shown whether older male teachers for example, were not as happy as young female teachers, and why?

In the light of these limitations of the research, and other issues raised in the earlier discussion, future research possibilities are identified in the next section.

7.6 Suggestions for Future Research

As indicated in the previous section, there are certain perspectives which could not be incorporated in the present study. Moreover, some issues have been raised by the findings that warrant further investigation. The following suggestions are therefore made, for research to complement and build on the contribution of this study.

- It would be useful in the future to have some form of measurement of teachers' actual competencies, as demonstrated in their classroom practice, and/or reflected in their responses to simulations and hypothetical scenarios. The written protocols and classroom observation schedules discussed in Chapter Two might provide a useful starting point for such research. Consideration could also be given to the use of information and communications technology to develop new ways of analysing teachers' knowledge and skills, for example by providing computer-simulated alternatives to the hypothetical scenarios of the written protocols, which would incorporate greater interactivity.
- Similar studies should be carried out in other regions of Sudan, in order to compile a nation-wide picture of teachers' perceptions of their competencies and training needs and to identify any regional variations (demographic, socio-economic, infrastructural, and so on) which may influence the kind of educational provision available and needed. This would provide a firmer basis for the planning of pre-service and in-service teacher training and the provision of material, informational and moral support to teachers working with pupils with SEN.
- The discrepancy between educational supervisors' assertions that most schools contain children with SEN (Table 6.49), and the claims by the majority of teachers that they had never taught such children (Table 6.35), raises issues of how SEN is being defined, and how children are identified as having SEN. There is, therefore, a need for research to identify more clearly how many and what categories of children with SEN are actually present in mainstream schools in Sudan, and how far they are catered for in special programmes or are retained in the regular classroom.
- It would be useful to investigate the knowledge and expertise in relation to SEN that exists in the private sector. It would be useful to identify, for example, whether teachers in private schools differ from those in state schools, in the extent to which they encounter children with SEN, and in their perceptions of their competencies to teach such children,

especially in view of the differences that may exist in the resources available to support teachers, for example, with up-to-date educational technology.

- Although, for the reasons indicated in Chapter Four, children with SEN in Sudan are most likely to be encountered in basic schools, it is possible that some continue to secondary schools; it has also been indicated (see Chapter One) that such children are often directed to local mainstream schools, and even adult literacy programmes. The competencies perceived and used by teachers in those schools, when come in contact with pupils with SEN, should therefore be investigated. In particular, in view of the claims by some advocates for inclusion that much 'special need' is socially created as a result of the academic emphasis on mainstream schooling, it would be interesting to find out whether teachers whose work is vocationally rather than academically oriented differ from their colleagues in mainstream academic education, in their attitudes towards pupils with SEN and their competence.
- In this research, a specific focus was placed on children with SEN; however, it was indicated in Chapter Three that in the view of many educationists, the competencies required for effective teaching of children with SEN in the mainstream are the competencies required for effective teaching of all children, with or without SEN. It is possible that the low level of confidence among teachers in this study, in their ability to adapt their teaching to children with SEN, is a reflection of a lack of confidence in their teaching competencies more generally, especially if they have little professional autonomy and few opportunities for professional development. It would be useful, therefore, to carry out a survey such as this one, which explores teachers' perceived and/or actual competencies in relation to all children, not only those with SEN. Such research would help to identify whether there may be a need to modify or add to current training, to ensure teachers have the competence and confidence to respond to pupil need in ways that would benefit all children, including those with SEN.

7.7 Overall Conclusion to the Thesis

Sudan has recently started the process of including children with special educational needs into mainstream schools. This has started by including children with moderate types of special need in mainstream basic schools. The implication of this initial move is that gradually, children with more severe needs will also be placed in the mainstream environment, and this is a situation where proper planning and rigorous implementation policy should be put in place.

It has been shown that a number of problems have been experienced so far in the implementation process, and that these difficulties result mainly from the absence of a solid implementation strategy built with reference to a clear inclusion policy as well as the lack of resources available for teachers and schools. This is disappointing since the evidence emerging from this study demonstrates the same problems encountered by all education systems, regardless of cultural orientation, as they have started the move to include children with special needs into mainstream education, and more attention to the strategies adopted to remedy the difficulties reported elsewhere in the world, could have prevented some of the problems identified in this research.

The overall conclusion to this thesis is, therefore, that teachers in Sudan are currently showing a genuine willingness to make the inclusion policy work. However, there is evidence that teacher preparation and continuing professional development have not kept pace with this trend. Consequently, mainstream basic school teachers lack confidence in their ability to identify children in their classes who may have special needs, and to adapt their teaching accordingly. However, because the lessons that could be learned from countries where inclusion has been implemented, have as yet been ignored, the key role of teachers and the need for them to be appropriately trained and resourced are not appropriately acknowledged, and the position could be reached where the willingness of teachers diminishes as they become over-stretched. This will negatively affect the quality of learning experience in the classroom, and the ground gained so far which is the positive attitudes and teachers' openness to inclusion. This was the real surprise of this study. Teachers have shown readiness to include children with SEN despite the fact that there is no clear inclusion policy and teachers were not prepared, qualified or resourced for such practice. However, this huge resource remained not fully utilised.

The evidence from the research confirms that even with minimal knowledge about the inclusion policy, teachers have already identified the need for a revised curriculum that embraces the spirit of inclusion, and Sudan is absolutely fortunate that such attitudes exist among teachers. The importance of providing appropriate knowledge and training for this key element is therefore, beyond question.

It is hoped that this study will contribute in raising awareness of this issue, and constitute a first step towards the provision of appropriate rewarding system and training opportunities for pre-service and serving teachers in Sudan. Such training is a necessary component of a responsible inclusion policy which promotes the greatest possible educational and social integrity of all pupils with and without special educational needs.

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Appendices

Glossary and Definition of Terms

In this section, definitions are given of some key terms used in this thesis. Italicised words within these definitions represent terms for which a separate definition is provided.

Basic School

For the purposes of this research, basic school means a school under the supervision of the Ministry of Education, providing education between the ages of 6 and 14 years.

Competencies

Criteria derived from the role of the practicing professional, referring to the knowledge, skills and personal attributes associated with competent teaching (Benson, 1977).

Educational Supervisor

An Educational Supervisor, in Sudan, is an official who performs an inspectorial and, to a lesser extent, advisory role in relation to the teaching of one or more subjects, in schools within a particular education district.

Inclusion

In the international literature, in general, inclusion is the process by which schools, local education authorities and others develop their cultures, policies and practice to include pupils'(DfES, 2001 b).

'Full' inclusion refers to a distinct kind of provision arrangement advocated by some inclusionists, whereby all children with special educational needs are educated in mainstream schools. This is the meaning conveyed in the Salamanca Statement (UNESCO, 1994), where inclusion means "providing education for children, youth and adults with special educational needs within the regular educational system (Art. 1).

It should be noted that in Sudan, the term inclusion is used somewhat differently. There, inclusion is a general term for a variety of arrangements by which children with SEN are taught in mainstream schools. In Sudan, "full" inclusion means that children are placed in a mainstream class, though they may be withdrawn for special teaching for up to 50% of the school day (see 'Resource room'). The arrangement whereby children are placed in a separate, *special class* attached to a mainstream school is referred to as "partial" inclusion.

Learning Difficulties

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 (DfES, 2001a, p. 6).

Resource Room

A designated room within the mainstream school containing specialist resources to facilitate teaching and learning for a particular category or categories of SEN. Pupils spend at least 50% of the school day in the mainstream classroom, visiting the resource room according to a time-table based on the child's needs and the educational situation of both the Special Education teacher and the mainstream class teacher.

Segregation

Segregation is education of pupils with SEN separately from their peers, in special residential or day schools. Such schools tend to have separate administrative structures, and to be staffed by *teachers* who have undergone different *training*, compared with mainstream schools.

Special Class

A special class is a class, attached to the mainstream school, in which pupils with SEN are taught separately from their peers, integrated with their peers for meals and recreation, and in some cases for Art and PE lessons. The majority of special classes in Sudan are for pupils diagnosed as mentally impaired, although a few programmes exist for hearing- impaired and multi-impaired pupils.

Special Educational Needs

Children have special educational needs if they have a learning or disability difficulty which calls for *special educational provision* to be made for them. A recent Sudanese definition, which lists categories of difference between the child with SEN and other children, is presented in Chapter Two on Sudan context of SEN.

Special Educational Provision

Special educational provision means educational provision which is additional to, or otherwise different from, the educational provision made generally for children of the same age in schools maintained by the local education authority, other than special schools, in the area (DfES, 2001a). In Sudan, the most common types of special educational provision, both of which are represented among the mainstream schools in this study, are *special classes* and *resource room* programmes.

Teacher

Teachers in this study are qualified full-time teachers in mainstream classrooms, *special classes* or *resource room* programmes, in mainstream *basic schools*.

Teacher Trainer

A teacher trainer is a professor or lecturer in a university who provides *training* in education, and who has some involvement in the development and delivery of such training, whether pre-service or in-service.

Training

In this study, training includes pre-service training programmes in universities or institutes, which qualify graduates to teach in *a basic school*, post-graduate courses in education, and in-service training related to special educational needs.

Appendix 4.1

Teachers, teachers' trainers and teachers' inspectors' responses to the exploratory study interview questions

Question 1

Do you have any pupils (children) with SEN? If yes, please specify the types of special needs.

Grade one Teachers

All interviewees in this group claimed to have pupils who experience hearing difficulties. Their comments as to the types of difficulties were as follows:

Teacher 1

The difficulties are related to genetic factors and environmental factors such as deprivation, which means that children live in an uneducated community.

Teacher 2

There are some cases of visual impairment and hearing impairment. There are no children who suffer from mental retardation as such children are usually transferred to special schools or institutes in the state.

Teacher 3

This teacher, too, reported cases of visual Impairment and deafness, and added that children with mental retardation go to special schools.

Teacher 4

Some children have poor co-ordination to the extent of being unable to hold a pencil properly. Some can write the alphabet clearly, but write letters with no meaning.

Grade Two Teachers

In this group, too, all interviewees reported contact with some children with learning difficulties. Their perceptions of these difficulties were as follows:

Teacher 1

The difficulties are due to:

- Parents' neglect of their children inside the home.
- The children are not encouraged to go to bed early, so they cannot concentrate in the classroom.
- The children dislike the subject matter because of its content or its teacher.

- Hearing impairment of which the teacher has not been notified.
- Repeated failure of some children because their mental age is less than their chronological age.

Teacher 2

There are a few children with difficulties:

- Visual Impairment
- Weakness of hearing
- Low IQ
- Family circumstances and disorders

Teacher 3

The difficulties are:

- The parents spoil their children with SEN by over protection and excessive affection, so the child becomes careless about school.
- Children feel education is worthless, so they have no interest in study.
- Children spend their time on TV, video and the entertainment tools inside the home and parents do not encourage their children to spend enough time on study.

Teacher 4

The difficulties are related to:

- Difficulty in understanding.
- Difficulty in pronunciation.
- Family troubles that affect the child's comprehension.

Teacher 5

The difficulties are:

- Difficulty in reading.
- Difficulty in writing.

Basic schools teacher trainers and supervisors

Both teacher's trainers and supervisors acknowledged the presence of a very small number of children with learning difficulties.

Teacher's trainer

There are a few children, not more than four in this school. Their difficulties are:

- Visual impairment
- Weakness in hearing
- Low IQ
- Social deprivation/lack of family atmosphere. Some children are brought up in social welfare homes.

Teacher's supervisor

There is a very low percentage of difficulties among the children. The difficulties are in:

- Visual impairment
- Weakness in hearing

There are no mentally retarded children in the school. In fact, such children cannot be classified; we would need to administer tests to identify the children's difficulties.

Secondary School Teacher

Both secondary school teachers had some pupils with learning difficulties. As regards the nature of these difficulties, they said:

Teacher 1

There is no measure to identify the children with learning difficulties, but I would describe the difficulties as:

- Fathers married with multiple wives who don't look after their children
- Low IQ
- Illiterate parents

Teacher 2

There are many children with difficulties, such as:

- Low IQ
- Psychological disorders

Question 2

In your opinion, what are the reasons that might contribute to your students having learning difficulties, e.g. curriculum, IQ, teaching methods, time/pace?

Grade one Teachers

These teachers saw most learning difficulties as caused by family factors or inappropriate teaching, rather than any specific disability on the part of the child. The specific factors cited were:

Teacher 1

- Family negligence
- Lack of children's motivation towards learning
- Teaching methods

Teacher 2

- Shortage of time
- The curriculum is not implemented accurately lack of teaching aids
- The inappropriateness of the classroom for educational purposes

Teacher 3

- Children's carelessness
- Teaching Methods

Teacher 4

- Family negligence
- Teaching methods
- Low IQ of children

Grade Two Teachers

One teacher in this group ascribed all learning difficulties to family factors, though the other three saw some weaknesses in curricula and teaching methods as contributing to children's difficulties.

Their responses were:

Teacher 1

- Family negligence
- Family disorders
- Low IQ
- Teaching methods

Teacher 2

- Lack of integration between the curricula teaching methods

Teacher 3

- Children being spoiled by their families over caring
- Children being involved in their parents' jobs
- Availability of entertainment tools inside the house
- Family carelessness

Teacher 4

- Family disorders inside the home
- Level of family education
- Lack of suitability of classrooms for learning
- Over-loaded curriculum

Teacher 5

- Teaching methods
- Level of family education

Basic schools teacher trainers and supervisors

Although one of them mentioned low IQ, the teacher's trainers and supervisors' main concern was with teaching-related difficulties:

Teacher's trainer

- Shortage of time
- The curriculum
- Teaching methods
- Level of IQ

Teacher's supervisor

- The reason is the teaching methods

Secondary School Teachers

The two secondary school teachers had quite different views of the reasons for learning difficulties:

Teacher 1

- Level of family education
- Polygamous families

Teacher 2

The reasons are:

- The curriculum sequence
- Low level of IQ

Question 3

What special help or support from teachers, counsellors, and/or the whole school do you believe these children require?

Grade one Teachers

All Grade one Teachers saw a need for action on the part of the school to meet the needs of children with learning difficulties, while one also suggested involving the parents, as follows:

Teacher 1

- Making a remedial plan for the children with learning difficulties

Teacher 2

- Giving supplementary classes to children with learning difficulties

Teacher 3

- The counsellor should give other teachers the proper advice and guidance for treating these children in a friendlier manner to make them like their classes.

Teacher 4

- Informing the parents about their children's achievement and behaviour to discuss the difficulties and find a suitable solution.
- Co-operation among the school staff to deal with this situation

Grade Two Teachers

Grade Two Teachers' responses emphasised that dealing with learning difficulties requires co-operation among the various people involved, including families:

Teacher 1

- Co-operation among the school staff to deal with these children.
- Providing the teacher with the necessary information about the difficulties of these children.

Teacher 2

- Co-operation between the counsellor, teacher and families of these children.

Teacher 3

- Co-operation with the teachers
- Following up the children's cases

Teacher 4

- Co-operation between the counsellor, school and family of the child.

Teacher 5

- Counsellor's visits to the children's families.

Basic schools teacher's trainers and supervisors for Grade Two teachers

Both teacher's trainers and supervisors, in answering this question, focused on the need for information about the children concerned.

Teacher's trainer

- Informing the school management staff about the children's cases.

Teacher's supervisor

- Following up these children through questionnaires.
- Explaining the cases of these children to the teachers.

Secondary School Teachers

The two secondary school teachers had quite different views. While Teacher 1 saw it as the counsellor's role to deal with these children, Teacher 2 favoured a more holistic approach:

Teacher 1

- The counsellor identifies the children's difficulties and takes note of their attendance or absence.

Teacher 2

- Co-operation between the counsellor, teachers and children's families.

Question 4

How/to what extent is the school able to provide this sort of support? If not, what are the problems?

Grade one Teachers

Grade one Teachers thought the school could help these children and suggested a number of approaches.

Teacher 1

- Implementing a programme for children with learning difficulties by introducing treatment methods for these children.
- Co-operation between the school staff and a teacher specialising in learning difficulties by organising committees and activities to help this teacher serve the target children.

Teacher 2

- Assigning special time to meet the needs of children with learning difficulties.
- Selecting experienced teachers to deal with these children.
- Getting the help from specialist teachers in the private schools.

Teacher 3

- The school may be able to encourage the teachers to pay special attention and care to these children.

Teacher 4

- The school may provide advice and guidance to these children to make their relations with teachers closer.
- Investigation of the reasons for the problems of these children.

Grade Two Teachers

Grade Two Teachers had conflicting views about the ability of the school to help these children. One was frankly pessimistic, while others seemed to suggest that help was possible but additional efforts to those currently in place would be needed.

Teacher 1

- Increasing the school staff efforts towards helping these children.

Teacher 2

- The school is unable to help these children because their families do not respond to the school's efforts.

Teacher 3

- The school may encourage the teachers to give special care to these children

Teacher 4

- The school can direct the teacher's efforts to focus on these children inside and outside the classroom.
- Increasing the role of the school counsellor to help these children.

Teacher 5

- The school is able if it raises the co-operation between the teachers, counsellor, management staff, and the parents to discuss the children's difficulties and the reasons behind them and find the proper solution.

Basic schools teacher's trainers and supervisors

They focused on two main kinds of help: facilities and information exchange.

Teacher's trainer

- The school can help, provided it has all the required facilities to help these children.

Teacher's supervisor

- The school can help through the counsellor's role to study and follow up the cases of the children with learning difficulties.
- Co-operation between the school and the child's parents if needed, to find a suitable solution for

the child's difficulties.

Secondary School Teachers

As in the case of previous questions, Teacher 2 was more inclined than Teacher 1 to see a need for co-operative efforts to be made.

Teacher 1

- Organising supplementary classes after the end of the school day.

Teacher 2

- Involving the child's family in solving the child's problems because the school cannot play this role alone.

Question 5

To what extent do you think these children are able to establish meaningful relationships with their peers in school? Please say how.

Grade one Teachers

Two teachers saw children with learning difficulties as withdrawn and lacking friends, whereas the other two suggested that with the teacher's help, this problem can be overcome:

Teacher 1

- The children can make friendships with each other through participatory programmes and activities.

Teacher 2

- The friendships between children with learning difficulties and others are too limited, and in general, they are withdrawn.

Teacher 3

- The teacher can play an active role in creating a spirit of intimacy and raising morale among the children by organising interactive activities.

Teacher 4

- The children with learning difficulties are unable to make friends and they are withdrawn because they repeatedly fail and stay in the same grade for many years.

Grade Two Teachers

Grade Two Teachers generally saw children with learning difficulties as withdrawn, though two thought they could be helped. Only one teacher recognised that children differed in their social

skills.

Teacher 1

- These children have limited ability in making friendships with their peers. The school should organise social activities to involve these children to raise their interactivity with their peers.

Teacher 2

- The children with learning difficulties have differing abilities in making relationships with their peers; some are socially active and others are withdrawn and unsociable because their families do not co-operate with the school to solve the problems of these withdrawn children.

Teacher 3

- These children have low levels of relationships with their peers.

Teacher 4

- These children are able to make relationships with others if they have the situations which are suitable for these relationships. The teachers, class co-ordinators, and the child's peers who are conscious of the child's difficulties, can play an active role in making the children with learning difficulties socially active with others.

Teacher 5

- The children are withdrawn because of their constant low achievement.

Basic schools teacher's trainers and supervisors for Grade One Teachers

Both teacher's trainers and supervisors linked social interaction with academic achievement.

Teacher's trainer

- Most of these children are withdrawn because they are low achievers.

Teacher's supervisor

- These children have good relationships with other children with similar levels of achievement, and they have weak relationships with other children with high achievement.

Secondary School Teachers

Neither secondary teacher was aware of any problems with children's social relationships.

Teacher 1

- In this stage, there are no very low achievers. From my experience, the students in this stage are

socially active and have good relationships with each other.

Teacher 2

- The students are able to make normal relationships with their peers but they need to raise their level of achievement
- The students are able to make normal relationships with their peers but they need to raise their level of achievement.

Question 6

How do you help them in this area?

Grade one Teachers

Grade one Teachers noted two main kinds of help: modified teaching to overcome low achievement, and positive reinforcement and encouragement to raise self-esteem.

Teacher 1

- Organising teaching plans for the remedy of the children's difficulties.
- Raising teachers' awareness of teaching methods suited to these children's abilities.

Teacher 2

- Making intimate relationships between the teachers and these children. Giving such children more time in the school.
- Assigning special tasks to children with SEN, according to their abilities.

Teacher 3

- Teacher's encouragement of these children through raising their morale by praise and reinforcement in front of their colleagues.

Teacher 4

- Explaining the lesson more than once and focusing on the children with learning difficulties.
- Decreasing the load of duties and home assignments and giving these children assignments suited to their abilities.

Grade Two Teachers

Again, teachers saw remedial help and encouragement as the best way to help children socially.

Teacher 1

- Identifying the children's difficulties by the help of the counsellor and the parents.

Teacher 2

- Making closer, friendly relationships with such children to make these children trust their teacher and help them to find a suitable solution for the problems.
- By teachers' praise and reinforcing desired behaviour to increase the achievement and progress of these children.

Teacher 3

- Explaining the lesson more than once to the children with learning difficulties. Asking normally developing children questions on the lesson and then asking those with learning difficulties, so that they learn through repetition.

Teacher 4

- The teacher should make remarks of encouragement and praise to make such children feel they are noticed and to help them improve.

Teacher 5

- The teacher should use reinforcement and praise, verbally and in writing, e.g. comments in the child's workbook.
- Seating such children in the front desks in the classroom to give them more attention.
- Encouraging these children to write on the chalkboard before their classmates to increase their self-confidence.

Basic schools teacher's trainers and supervisors for Grade Two teachers

For teacher's trainers and supervisors, this was a matter of pastoral care, which they saw as appropriately dealt with through the Guidance and Counselling programme.

Teacher's trainer

- Giving every possible care to these children when they stay at the school. For those who may leave the school, we contact the counselling service to study the cases of these children who may be transferred to special schools.

Teacher's supervisor

- This is more related to the role of the school counsellor than to my role. The school counsellor meets the child with learning difficulty in my presence and we both discuss this child's case to find a good solution.

Secondary School Teachers

- Both secondary school teachers viewed this issue purely in terms of helping to raise these

pupils' academic achievement.

Teacher 1

- More explanation of the lesson to the children inside the classroom.
- Making remedial classes for the children with learning difficulties outside the classroom.

Teacher 2

- Giving additional time, after the end of the school day, to these children.
- More explanation of the lesson inside the classroom.

Question 7

What do you need to help them in this area?

Grade one Teachers

Two teachers thought specialist staff was needed to deal with these children, though several other kinds of support were mentioned:

Teacher 1

- I need facilities, equipment and a special room.
- The teacher needs specialised staff in this field.
- Co-operation is needed between the teachers and the specialised staff to deal with the children's difficulties.

Teacher 2

- I need enough time.
- There is a need for special classes for these children.
- There is a need for the specialised teachers to take the responsibility for teaching these children.

Teacher 3

- I need the help of the parents to solve their child's problems.
- I need financial support to buy gifts for these children as a kind of incentive for them.

Teacher 4

- I need teaching aids.
- The need for gifts to present to the children.

Grade Two Teachers

Only one grade two teacher felt capable of meeting all children's needs without additional support.

The responses of this group were as follows:

Teacher 1

- I need enough time to solve the children's problems

Teacher 2

- I need the guidance and help of the school counsellor.
- I need the co-operation of the school to hold a meeting with the parents to discuss their child's difficulties.

Teacher 3

- I need nothing, because I do my best to explain the lesson very well using the teaching aids to facilitate the child's understanding.

Teacher 4

- I need the co-operation of the parents and the school staff.
- I need a well-planned curriculum.
- I emphasise the role of the school counsellor in raising the children's morale.

Teacher 5

- I need to reduce the teaching load to give me more time to help these children.

Basic schools teacher's trainers and supervisors

Whilst one education supervisor hoped that additional efforts would enable these children to succeed with the regular curriculum, the other thought they needed different, non-academic activities:

Teacher's trainer

- We need to have basic technical workshops to involve the children with learning difficulties in these workshops. These children may develop their hand crafts to compensate for their low achievement in school.

Teacher's supervisor

- We need the teacher to increase his effort in teaching these children.
- We need the co-operation of the child's family with the school.

Secondary School Teachers

Teaching load was the main concern for secondary teachers:

Teacher 1

- I need enough time to help the children.

Teacher 2

- I need to reduce the teaching load and I need to reduce the number of children in the class; not more than 25 children.

Question 8

What action do you take if you find a pupil has learning difficulties or repeatedly fails a grade? (For example, are they excluded from school? Does school call in the parents? Is there any mechanism for referring the child to medical, social or psychological services for further assessment/help?)

Grade one Teachers

All Grade one Teachers thought that the school would first try to identify and address learning difficulties, but eventually, if there is no progress, the child would be referred elsewhere. The detailed responses were:

Teacher 1

- To help the repeated failures, we organise a special programme to treat their weaknesses, so that after this yearly programme, the children's difficulties are overcome. There is a mechanism to transfer a few children for medical check.

Teacher 2

- Identifying the reason for the difficulty or failure. If the school teacher can solve this problem, the child will stay in the school. Otherwise the child's difficulty will be referred to the counsellor who may decide to send him to hospital for a medical check. As for repeated failures, a school committee will study their cases and either decide to let them stay at the school or refer them to evening class centres. This mechanism is one applied by the school.

Teacher 3

- We study the children's failures or difficulties to identify the reasons. We try to find the proper solutions for the children's problems. The school tends to transfer children who need medical examination to the medical services.

Teacher 4

- The school management staffs call in the parents of repeatedly failing children and advise them to transfer their children to special evening class centres. There is a mechanism to refer children with difficulties to the medical services.

Grade Two Teachers

Grade Two Teachers, in the main, described a similar procedure to that described by Grade one Teachers:

Teacher 1

- I don't agree with excluding repeated failures from the school. The school management staff, counsellor, and parents have to study the children's cases to find a suitable solution. The school applies a mechanism of referring children with learning difficulties to the health services.

Teacher 2

- The school should not exclude repeated failures. The school management staff and the counsellor find an appropriate solution for these children. Yes, there is a mechanism to transfer these children to the special health unit.

Teacher 3

- I report the children's difficulties to the school counsellor at first. Secondly, I report the cases to the school education supervisor. Then, the school education supervisor, counsellor, and teacher meet the parents to study the difficulties of the children. Repeated failure cases are not excluded but transferred to adult learning centres. The mechanism applied by the school is to refer the child with learning difficulty to the health care services.

Teacher 4

- Repeated failures should be put in one classroom with the very good achievers to help them improve their level. The counsellor should study the cases of these children and find the proper solutions. If this action does not work, the school should transfer these children to vocational training centres. The school mechanism is to refer the child with any difficulty to the medical services.

Teacher 5

- The school counsellor studies the cases of the repeated failures and calls in the parents to discuss their children's cases. I do not advise excluding repeated failures from the school, without giving them an alternative. The school usually refers the children with difficulties to the health services as a mechanism to help these children.

Basic schools teacher's trainers and supervisors

Both teacher's trainers and supervisors mentioned referral for health screening, but they differed in their views as to the appropriate alternative form of education.

Teacher's trainer

- The repeated failures for three years are transferred to vocational training centres. The mechanism the school applies is to refer the children to the health services.

Teacher's supervisor

- We call in the parents of the repeated failures to study their cases and identify the reasons and find a proper solution. If the school cannot provide the solution, then it is advised the children are transferred to adult learning centres. As for medical checks, the school mechanism is to refer the children to the specialist medical unit.

Secondary School Teachers

One secondary teacher mentioned regular monitoring of children with difficulties; both indicated that referral is made to the health unit.

Teacher 1

- An annual and monthly follow-up is run by the School-Parents Council to study the children's difficulties. The parents are advised to arrange for their children to have private remedial tuition outside the school. As for the children's difficulties, the school mechanism is to refer the children to the medical check.

Teacher 2

- Identifying the reasons for the failure to find a suitable solution for the children's weaknesses. The school refers the children with difficulties to the health services.

Question 9

What training have you had to help you provide for these children?

a) In pre-teacher training

b) In-service training

Grade one Teachers

Only one of the Grade one Teachers had specific pre-service training in relation to teaching pupils with special needs: he had a first degree in educational psychology from the University of Khartoum.

Grade Two Teachers

None of the Grade Two Teachers had received any training specifically related to special needs. However, one teacher studied SEN courses at the university.

Basic schools teacher's trainers and supervisors

Neither education supervisors nor teacher trainers had been trained to include children with special educational needs.

Secondary School Teachers

Neither secondary teacher had received pre-service or in-service training in this area.

Question 10.

What training would help you now to provide for these children?

Grade one Teachers

Only one primary teacher perceived a need for training to meet the needs of children with learning difficulties.

Teacher 1

- I need to exchange the experience with my colleagues at the other grades.

Teacher 2

- Receiving training in the special education schools.

Teacher 3

- I need to be loyal to my job.

Teacher 4

- I need no training because the children with learning difficulties are transferred to special schools.

Grade Two Teachers

Three of the Grade Two Teachers thought training would help them.

Teacher 1

- We need to be close friends with the children who have learning difficulties.

Teacher 2

- I need training on teaching methods.
- I need teaching aids and equipment.

Teacher 3

- I just need patience with such children.

Teacher 4

- I need training courses.
- I need to visit the special schools which help children with SEN.
- Exchange of experience with the teachers specialising in SEN.

Teacher 5

- I need training in psychology of children and adolescents.

Basic schools teacher's trainers and supervisors

Both teacher's trainers and supervisors expressed needs for further training:

Teacher's trainer

- I need training in SEN.

Teacher's supervisor

- There is need for training in psychology and health.

Secondary School Teachers

The two secondary school teachers differed in their opinions on this issue. Their comments were:

Teacher 1

- There may be a need for training for Grade one teachers, but there is no need at the secondary level.

Teacher 2

- There is a need for training on using special equipment to facilitate helping children with SEN.

Appendix 5.1

Questionnaire, first version

Teachers Attitudes Towards Their Training Needs in Relation to Special Educational Needs

Direction:

Please read each question carefully and choose the appropriate response.

Note: For the purpose of this study, pupil with special educational needs are referred to as those who “are different from their peers in their cognitive, physical, emotional, sensory behavioural academic or communicative abilities”, and who need “adaptations of learning requirements and school equipment by using methods, techniques and programmes to enable them to make use of the natural education environment”.

Section I: Formal Training

Directions:

Fill in the blanks or tick the appropriate box that describes your answer.

1. Approximately how many credit hours of training directly related to special education needs did you have as part of your initial (i.e. pre-service) teacher training? _____ years.

2. Have you had any in-service training related to special needs in the past 2 years?

Yes

()

No

()

If yes, please describe briefly the training theme (e.g. integration, lesson planning, assessment) type of training (e.g. seminar, workshop) and duration of the training.

Theme

Type

Duration

a) _____

b) _____

c) _____

Section II: Knowledge, attitudes and Skills in Relation to Special Educational Needs

Directions:

- Please assume you will be expected to work with special needs pupils in the regular classroom, in the following year.
- Carefully read each statement and indicate at what level you would feel able work with special needs pupils, and the extent to which you think you need/wish for training in each competency.
- Please respond regardless of how often you may use these skills at the present.
- Use the scales indicated below.

For the following question, tick the answer that best describes your views.

SA = Strongly Agree

DNA = I don't need at all

A= Agree

DN = I don't need

NS = I am not sure

NS = I am not sure

D = Disagree

D = I do need

SD = Strongly Disagree

SN = I strongly need.

Knowledge		Level of Agreement					My need/wish for training in this area				
		SA	A	NS	D	SD	DNA	DN	NS	D	SN
1	I have a good understanding of child development.										
2	I know about theories of learning and their application to special educational needs.										
3	I know about legislations and policy of special educational needs.										
4	I am aware of my ethical responsibilities towards pupils with special educational needs										
Any further comments about your knowledge in the area of special educational needs.		Any further comments about your needs/wish for training in the area of this area.									

Attitudes		Level of Agreement					My need/wish for training in this area				
		SA	A	NS	D	SD	DNA	DN	NS	D	SN
5	I feel that it is appropriate to include pupils with special educational needs in my class.										
6	I am prepared to work with special needs pupils										
7	I am comfortable in working with special needs pupils										
8	I feel happy to deal with pupils with special learning needs										
9	It is important to deal with pupils with special learning needs in order to develop their learning skills										
10	I prefer to work with pupils with special educational needs than working with normal pupils										
11	I do not feel happy I work with pupils with special educational needs										
12	The work with pupils with special educational needs is a waste of time										
13	Teaching pupils with special educational needs is a very complicated task										
Any further comments about your attitudes in the area of special educational needs		Any further comments about your needs/wish for training in the area of this area.									

Assessment, Evaluation and Recording		Level of Agreement					My need/wish for training in this area				
		SA	A	NS	D	SD	DNA	DN	NS	D	SN
14	I can identify potential special educational needs (sensory, physical, intellectual and behavioural)										
15	I feel able to informally assess the pupils' learning needs										
16	I can evaluate the academic performance and progress of the pupils', relative to the chosen goals and adjectives										

17	I can fairly and accurately assess the overall progress of every pupil, including those with SEN										
18	I am able to construct a pupil profile based on observational data(formal and informal data)										
Any further comments about your assessment, evaluation and recording in the area of special educational needs.		Any further comments about your needs/wish for training in the area of this area.									

Planning, Organization and Management of Instruction		Level of Agreement					My need/wish for training in this area				
		SA	A	NS	D	SD	DNA	DN	NS	D	SN
19	I can set appropriate educational goals and objectives for pupils with special educational needs.										
20	I can organize a flexible programme of instruction to meet the needs of all pupils										
21	I can organise the classroom to facilitate the instruction of all pupils, including those with special educational needs.										
22	I can create a suitable classroom environment for special education needs										
23	I am able to identify material, equipment, and training that will aid me in teaching pupils with special educational needs										
24	I have the skills needed to to assess the effectiveness of instructional materials and lessons for pupils with special educational needs.										
25	I have the ability to plan and prepare specialised materials and lessons for special needs pupils in my classroom										
26	I can use evaluation outcomes as basis for devising or altering objectives, methods and organization in order to meet the needs of pupils with special educational needs.										

Any further comments about your planning, organization and management of instruction in the area of special educational needs.	Any further comments about your needs/wish for training in the area of this area.
--	---

Curriculum Adaptation		Level of Agreement					My need/wish for training in this area				
		SA	A	NS	D	SD	DNA	DN	NS	D	SN
27	I can analyse curriculum materials to assess their appropriateness for pupils with Special educational needs										
28	I can develop appropriate learning materials to meet the individual needs of pupils with special educational needs										
Any further comments about your curriculum adaptation in the area of special educational needs.		Any further comments about your needs/wish for training in the area of this area.									

Instructional Competencies		Level of Agreement					My need/wish for training in this area				
		SA	A	NS	D	SD	DNA	DN	NS	D	SN
29	I can perform an analysis of the instructional steps for the tasks I am teaching the pupils.										
30	I can analyse the concepts for the topic I am teaching.										
31	I can develop an appropriate instructional sequence for a pupil with special needs, based on the analysis of tasks and competencies.										
32	I can use varied teaching methods to meet the needs of the pupils										
Any further comments about your instructional competencies in the area of special educational needs.		Any further comments about your needs/wish for training in the area of this area.									

Management of Behaviour		Level of Agreement					My need/wish for training in this area				
		SA	A	NS	D	SD	DNA	DN	NS	D	SN
33	I can use teaching methods suitable to attract the attention of my pupils.										
34	I can use behavior management technique appropriately.										
25	I can provide appropriate positive reinforcement to motivate pupils with special educational needs.										
26	I can devise and implement strategies to promote the social integration of pupils with special educational needs.										
Any further comments about your management of behaviour in the area of special educational needs.		Any further comments about your needs/wish for training in the area of this area.									

Use of Resources (Materials and Human)		Level of Agreement					My need/wish for training in this area				
		SA	A	NS	D	SD	DNA	DN	NS	D	SN
37	I can assess community resources relevant to special educational needs using my social skills.										
38	I feel that it is important to use parents or guardians as partners in instructional efforts.										
Any further comments about your use of resources (materials and human)		Any further comments about your needs/wish for training in the area of this area.									

Counselling, Communication and Collaboration		Level of Agreement					My need/wish for training in this area				
		SA	A	NS	D	SD	DNA	DN	NS	D	SN
39	I can give constructive feedback to colleagues regarding working with pupils with special educational needs.										
40	I can communicate and co-operate effectively with other professionals, e.g. doctors, social workers,										

	psychologists, to help pupils with special educational needs.										
41	I can advise parents about how to help their child with special educational needs at home										
42	I can guide pupils' with special educational needs to develop positive self-concept.										
43	I can communicate effectively with parents regarding pupils' ability and progress										
Any further comments about your counseling, in the area of special educational needs.		Any further comments about your needs/wish for training in the area of this area.									

Personal Skills		Level of Agreement					My need/wish for training in this area				
		SA	A	NS	D	SD	DNA	DN	NS	D	SN
44	I have self-confidence because I exhibit a high degree of maturity.										
45	I show empathy, tact and sensitivity when working with pupils with special educational needs.										
46	I am flexible and willing to learn from experience.										
Any further comments about your personal skills, in the area of special educational needs.		Any further comments about your needs/wish for training in the area of this area.									

Section III: Further Educational Opportunities

Directions:

Tick the box that best describes your opinion, using the following scale:

SA = Strongly Agree

A= Agree

NS = I am not sure

D = Disagree

SD = Strongly Disagree

Future Educational Opportunities		SA	A	NS	D	SD
47	In the future I would be interested in an in-service training in the area of special educational needs.					
48	I would like to receive individual advice from specialists and/or teacher trainers in the area of special educational needs.					
49	I would like to receive teacher training materials in the area of special educational needs (work books, videos, etc.)					
50	I would like to observe experienced special educational needs teachers.					
51	I would like to attend workshops, seminars, short courses and professional days in the area of special educational needs					
52	I would like in-service seminars (less than a week) in the area of SEN					
53	I would like to attend college credit course work in SEN (once a week)					
54	I would like to attend professional days with my colleagues and specialists in SEN					
55	I would like training at the weekend					
56	I would like training during summer holidays					
57	I would like special release time during school to attend training					
58	I would attend training after school					

Do you have any further comments about training opportunities?

Section IV: Personal and professional Background

Directions:

Please place a tick () in the box by the answer that best describes you, or write your answer in the space provided.

1. How old are you?

- a) under 30 ()
- b) 30-39 ()
- c) 40-49 ()
- d) 50 and over ()

2. How long have you been teaching in basic mainstream schools?

- a) Less than 5 years ()
- b) From 5-10 years ()
- c) More than 10 years ()

3. What is your teaching qualification?

- a) BA in Elementary Education (from Teacher Training Institute) ()
- b) BA in Education (from a university) ()
- c) Diploma in Education (after BA or BSc) ()

d) Diploma in Teaching (from Teacher Training College) ()

e) Other (please specify _____)

4. Do you have any experience in teaching pupils with special educational needs?

Yes ()

No ()

If yes, where and for how long?

In special school _____ years

In special a special class within a mainstream school _____ years

In a regular class _____ years

5. Do you think you receive the necessary support you need to help you teach pupils with special educational needs?

	Yes	To a limited extent	No
From outside agencies	()	()	()
From school administration	()	()	()
From parents and guardians	()	()	()

6. Year / level you teach (if more than one, tick all the relevant boxes)

1 ()

2 ()

3 ()

4 ()

5 ()

6 ()

7 ()

8 ()

9 ()

Thank you very much for your participation.

Appendix 5.2

Interview schedule for Educational Supervisors (Inspectors)

Question 1: How long have you been working in the general education field?

Question 2: How long have you been an educational supervisor?

Question 3: What subjects did you specialise in at college/university?

Question 4: What subject(s) do you currently supervise in the school?

Question 5: How many schools do you inspect?

Question 6: How many teachers does that involve?

Question 7: How often do you visit each school?

Question 8: On your visits to school, to what extent have you noticed teachers trying to assist pupils who have SEN?

Question 9: How well prepared do you think teachers are in general to deal with SEN?

Question 10: What sort of difficulties do you think mainstream teachers face in dealing with pupils with SEN?

Question 11: To what extent are you and your colleagues, as inspectors, able to advise and support such teachers?

Question 12: What other sources of advice and support are available to teachers to help them to deal with SEN?

Question 13: How accessible and effective are those sources?

Question 14: Do you think there is a need for teachers to have more pre-service preparation to deal with SEN? If so, in what way?

Question 15: Do you think there is a need for more training advice or support for in-service teachers in dealing with SEN? If so, in what way?

Appendix 5.3

Interview schedule for Teacher Trainers

Question 1: How long have you been a teacher trainer?

Question 2: How long have you worked in the field of SEN?

Question 3: Can you tell me about your involvement with the preparation and delivery of courses related to SEN, whether as a designer, a teacher, or an evaluator?

Question 4: There is an increasing trend world-wide to include pupils with special educational needs in mainstream schools and classrooms, and it seems likely that at some stage, Sudan will follow suit. Even without integration or inclusion, it is likely that mainstream schools already contain some pupils with SEN - perhaps those with a mild to moderate mental or physical impairment who do not qualify for admission to a special school, or pupils with emotional or behavioural problems. With this in mind, can you tell me what special knowledge, skills and attitudes mainstream teachers need to deal with such children?

Question 5: To what extent do you think current pre-service training programmes prepare mainstream teachers to meet SEN?

Question 6: What role is played by in-service training in equipping mainstream teachers to deal with SEN?

Question 7: In your opinion, could teacher training institutions and agencies do more to prepare teachers to help pupils with SEN? If so, how?

Question 8: Are there any particular problems or constraints in the way of providing such training? Can you elaborate?

Question 9: What should be done pre-service to prepare teachers for teaching SEN?

Question 10: What should be done in-service to prepare teachers for teaching SEN?

Appendix 5.4

Interview schedule for Teachers

Question 1: Do you currently teach, or have you ever taught, in the mainstream classroom, any pupils whom you think have special educational needs? Can you give any examples of the sorts of special needs you have encountered?

Question 2: What particular difficulties or challenges do you face in dealing with these children? e.g. in relation to their learning needs, their behaviour, their psychological/emotional needs.

Question 3: Which aspect of teaching or interacting with children with SEN do you find the most difficult? Can you suggest any reason for that?

Question 4: Can you give examples of any particular methods or approaches you use in teaching children with special educational needs?

Question 5: Do you think your pre-service training prepared you adequately to deal with children with SEN. If yes, in what way? If not, why not? What were the deficiencies?

Question 6: What in-service training opportunities are available to mainstream teachers to help them teach children with SEN in the mainstream classroom?

Question 7: Have you ever attended any sort of in-service training in relation to SEN? If no, is that because you have not been given an opportunity or for some other reason? If yes, can you tell me a bit about that training? (where, when, content). How satisfied were you with the course? To what extent did it meet your needs?

Question 8: If you have a problem in relation to a child with SEN, what do you do? Is there anyone you can ask for advice? Would you look for ideas in books and journals? Or do you try to work out a solution yourself?

Question 9: Is there any kind of information that you need, or any skills that you would like to develop, to help teach children with SEN?

Question 10: What do you think are the priorities in training teachers to include pupils with SEN? In other words, what should the training most concentrate on?

Appendix 5.5

Questionnaire Items before and after Modification

KNOWLEDGE	
Item before modification	Item after modification
4. I am aware of my ethical responsibilities towards pupils and colleagues.	I am aware of my ethical responsibilities towards pupils with special educational needs.
ASSESSMENT, EVALUATION AND RECORDING	
15. I feel able to informally assess the child's instructional needs	I feel able to informally assess the pupil's learning needs
18. I am able to construct a student profile based on observational data and formal and informal assessment	I am able to construct a pupil profile based on observational data (formal and informal assessment).
MANAGEMENT AND BEHAVIOUR	
33. I can establish and maintain the attention of the child	I can use teaching methods suitable to attract the attention of my pupils.
37. I know about and could assess community resources relevant to SEN	I have an access to community resources relevant to SEN.
PERSONAL SKILLS	
44. I exhibit a high degree of maturity and	44. I exhibit a high degree of maturity and

self confidence	self confidence in relation to teaching children with SEN
FUTURE EDUCATIONAL OPPORTUNITIES	
51. I would like to attend workshops (1-3 days).	I would like to attend workshops (1-3 days) in the area of SEN.
52. I would like in-service seminars (less than once a week).	I would like to attend in-service seminars (less than once a week) in the area of SEN.
54. I would like professional days at school with no students).	I would like to attend professional days with my colleagues and specialists in SEN

Appendix 5.6

Advisory panel agreement with the questionnaire items (validity)

Item No	Agree		Disagree	
	No.	%	No.	%
1.	9	90	1	10
2.	8	80	2	20
3.	10	100	0	0
4.	8	80	2	20
5.	9	90	1	10
6.	8	80	2	20
7.	10	100	0	0
8.	9	90	1	10
9.	8	80	2	20
10.	8	80	2	20
11.	9	90	1	10
12.	9	90	1	10
13.	8	80	2	20
14.	9	90	1	10
15.	10	100	0	0
16.	10	100	0	0
17.	8	80	2	20

18.	8	80	2	20
19.	9	90	1	10
20.	9	90	1	10
21.	8	80	2	20
22.	8	80	2	20
23.	10	100	0	0
24.	9	90	1	10
25.	10	100	0	0
26.	10	100	0	0
27.	8	80	2	20
28.	9	90	1	10
29.	9	90	1	10
30.	9	90	1	10
31.	8	80	2	20
32.	8	80	2	20
33.	9	90	1	10
34.	9	90	1	10
35.	9	90	1	10
36.	8	80	2	20
37.	8	80	2	20
38.	9	90	1	10

39.	10	100	0	0
40.	10	100	0	0
41.	8	80	2	20
42.	8	80	2	20
43.	8	80	2	20
44.	8	80	2	20
45.	9	90	1	10
46.	9	90	1	10
47.	9	90	1	10
48.	9	90	1	10
49.	10	100	0	0
50.	10	100	0	0
51.	10	100	0	0
52.	10	100	0	0
53.	9	90	1	10
54.	8	80	2	20
55.	8	80	2	20
56.	9	90	1	10
57.	8	80	2	20
58.	9	90	1	10

Appendix 5.7

Final version of the questionnaire (English version)

Questionnaire of Teachers Attitudes Towards Their Training Needs in Relation to Special Educational Needs

Direction:

Please read each question carefully and choose the appropriate response.

Note: For the purpose of this study, pupil with special educational needs are referred to as those who “are different from their peers in their cognitive, physical, emotional, sensory behavioural academic or communicative abilities”, and who need “adaptations of learning requirements and school equipment by using methods, techniques and programmes to enable them to make use of the natural education environment”.

Section I: Personal and professional Background

Directions:

Please place a tick () in the box by the answer that best describes you, or write your answer in the space provided.

7. How old are you?

e) under 30 ()

f) 30-39 ()

g) 40-49 ()

h) 50 and over ()

8. How long have you been teaching in basic mainstream schools?

d) Less than 5 years ()

e) From 5-10 years ()

f) More than 10 years ()

9. What is your teaching qualification?

f) BA in Elementary Education (from Teachet Trainig Institute) ()

g) BA in Education (from a university) ()

h) Diploma in Education (after BA or BSc) ()

i) Diploma in Teaching (from Teacher Training College) ()

j) Other (please specify _____)

10. Dou you have any experience in teaching pupils with special educational needs?

Yes () No ()

If yes, where and for how long?

In special school _____ years

In special a special class within a mainstream school _____ years

In a regular class _____ years

11. Do you think you receive the necessary support you need to help you teach pupils with special educational needs?

	Yes	To a limited extent	No
From outside agencies	()	()	()
From school administration	()	()	()

From parents and guardians () () ()

12. Year / level you teach (if more than one, tick all the relevant boxes)

1 ()	2 ()	3 ()
4 ()	5 ()	6 ()
7 ()	8 ()	9 ()

Section II: Formal Training

Directions:

Fill in the blanks or tick the appropriate box that describes your answer.

1. Approximately how many credit hours of training directly related to special education needs did you have as part of your initial (i.e. pre-service) teacher training? _____ years.

2. Have you had any in-service training related to special needs in the past 2 years?

Yes () No ()

If yes, please describe briefly the training theme (e.g. integration, lesson planning, assessment) type of training (e.g. seminar, workshop) and duration of the training.

Theme	Type	Duration
a) _____	_____	_____
b) _____	_____	_____
c) _____	_____	_____

Section III: Knowledge, ttitudes and Skills in Relation to Special Educational Needs

Directions:

- Please assume you will be expected to work with special needs pupils in the regular classroom, in the following year.
- Carefully read each statement and indicate at what level you would feel able work with special needs pupils, and the extent to which you think you need/wish for training in each competency.
- Please respond regardless of how often you may use these skills at the present.
- Use the scales indicated below.

For the following question, tick the answer that best describes your views.

SA = Strongly Agree

DNA = I don't need at all

A= Agree

DN = I don't need

NS = I am not sure

NS = I am not sure

D = Disagree

D = I do need

SD = Strongly Disagree

SN = I strongly need.

Knowledge		Level of Agreement					My need/wish for training in this area				
		SA	A	NS	D	SD	DNA	DN	NS	D	SN
1	I have a good understanding of child development.										
2	I know about theories of learning and their application to special educational needs.										
3	I know about legislation and policy in relation to special educational needs.										
4	I am aware of my ethical responsibilities towards pupils with special educational needs.										
Any further comments about your knowledge in the area of special educational needs.		Any further comments about your needs/wish for training in the area of this area.									

Attitudes		Level of Agreement					My need/wish for training in this area				
		SA	A	NS	D	SD	DNA	DN	NS	D	SN
5	I am prepared to work with and teach special needs pupils.										
6	I am comfortable in working with special needs pupils.										
7	It is important to include pupils with special learning needs in order to develop their learning skills.										
8	Work with pupils with special educational needs is a worthwhile use of my time.										
Any further comments about your attitudes in the area of special educational needs		Any further comments about your needs/wish for training in the area of this area.									

Assessment, Evaluation and Recording		Level of Agreement					My need/wish for training in this area				
		SA	A	NS	D	SD	DNA	DN	NS	D	SN
9	I am able to construct a pupil profile based on observational data (formal and informal data).										
10	I can identify potential special educational needs (sensory, physical, intellectual and behavioural).										
11	I can evaluate the academic performance of the pupil, relative to my chosen goals and objectives.										
12	I can fairly and accurately assess the overall progress of every pupil, including those with SEN.										
Any further comments about your assessment, evaluation and recording in the area of special educational needs.		Any further comments about your needs/wish for training in the area of this area.									

Planning, Organization and Management of Instruction		Level of Agreement					My need/wish for training in this area				
		SA	A	NS	D	SD	DNA	DN	NS	D	SN
13	I can set appropriate educational goals and objectives for pupils with SEN.										
14	I can organise a flexible programme of instruction to meet the needs of all pupils.										
15	I am able to identify material, equipment, and training that will aid me in teaching special needs pupils.										
16	I have the skills needed to assess the effectiveness of instructional material and activities for special needs pupils.										
Any further comments about your planning, organization and management of instruction in the area of special educational needs.		Any further comments about your needs/wish for training in the area of this area.									

Curriculum Adaptation		Level of Agreement					My need/wish for training in this area				
		SA	A	NS	D	SD	DNA	DN	NS	D	SN
17	I can analyse curriculum materials to assess their appropriateness for a pupil with SEN.										
18	I can develop appropriate learning materials to meet the individual needs of a pupil with SEN.										
Any further comments about your curriculum adaptation in the area of special educational needs.		Any further comments about your needs/wish for training in the area of this area.									

Instructional Competencies		Level of Agreement					My need/wish for training in this area				
		SA	A	NS	D	SD	DNA	DN	NS	D	SN
19	I can use varied teaching methods to meet the needs of the pupil.										
20	I can analyse the concepts for the topic I am teaching.										
21	I can develop an appropriate instructional sequence for a pupil with special needs, based on the analysis of tasks and competencies.										
22	I can organize a flexible programme of instruction to meet the needs of all pupils.										
Any further comments about your instructional competencies in the area of special educational needs.		Any further comments about your needs/wish for training in the area of this area.									

Management of Behaviour		Level of Agreement					My need/wish for training in this area				
		SA	A	NS	D	SD	DNA	DN	NS	D	SN
23	I can use teaching methods suitable to attract the attention of my pupils.										
24	I can use behaviour management techniques appropriately.										
25	I can provide appropriate positive reinforcement to motivate pupils with SEN.										
26	I can devise and implement strategies to promote the social inclusion of pupils with SEN.										
Any further comments about your management of behaviour in the area of special educational needs.		Any further comments about your needs/wish for training in the area of this area.									

Use of Resources (Materials and Human)		Level of Agreement					My need/wish for training in this area				
		SA	A	NS	D	SD	DNA	DN	NS	D	SN
27	I can access community resources relevant to SEN using my social skills.										
28	I feel that it is important to use parents or guardians as partners in instructional efforts.										
Any further comments about your use of resources (materials and human)		Any further comments about your needs/wish for training in the area of this area.									

Counselling, Communication and Collaboration		Level of Agreement					My need/wish for training in this area				
		SA	A	NS	D	SD	DNA	DN	NS	D	SN
29	I can give constructive feedback to colleagues regarding working with pupils with SEN.										
30	I can communicate and co-operate effectively with other professionals, e.g. doctor, social worker, psychologist, to help pupils with SEN.										
31	I can advise parents about their children's progress and how to help them at home.										
32	I can guide pupils with SEN in the development of positive self-concept.										
Any further comments about your counseling, in the area of special educational needs.		Any further comments about your needs/wish for training in the area of this area.									

Personal Skills		Level of Agreement					My need/wish for training in this area				
		SA	A	NS	D	SD	DNA	DN	NS	D	SN
33	I have self-confidence because I exhibit a high degree of maturity.										
34	I show empathy, tact and sensitivity in my dealings with pupils.										
35	I am flexible and willing to learn from experience.										
Any further comments about your personal skills, in the area of special educational needs.		Any further comments about your needs/wish for training in the area of this area.									

Section III: Further Educational Opportunities

Directions:

Tick the box that best describes your opinion, using the following scale:

SA = Strongly Agree

A= Agree

NS = I am not sure

D = Disagree

SD = Strongly Disagree

Future Educational Opportunities		SA	A	NS	D	SD
36	In the future I would be interested in an in-service training in the area of special educational needs.					
37	I would like to receive individual advice from consultants and/or specialists in relation to special educational needs.					
38	I would like to attend workshops and seminars (1-3 days) in the area of SEN whenever available.					
39	I would like to observe experienced special educational needs teachers.					
40	I would like to receive teacher training materials (work, books, videos, etc.)					

Do you have any further comments about training opportunities?

Thank you very much for your participation.

Appendix 5.8

Questionnaire Test-retest reliability

	Knowledge	Level of Agreement	My need/wish for training in this area is:
1	I have a good understanding of child development.	0.79	0.77
2	I know about theories of learning and their application to special educational needs.	0.86	0.81
3	I know about legislation and policy in relation to special educational needs.	0.79	0.75
4	I am aware of my ethical responsibilities towards pupils with special educational needs.	0.73	0.72
The reliability by Cronbach's alpha for the Dimension (*all of the correlation is significant at (0.01))		0.86	0.85

Reliability: Simple Correlation and Cronbach's Alpha for the Questionnaire Items and Dimensions

	Attitudes	Level of Agreement	My need/wish for training in this area is:
5	I am prepared to work with and teach special needs pupils.	0.86	0.91
6	I am comfortable in working with special needs pupils.	0.88	0.93
7	It is important to include pupils with special learning needs in order to develop their learning skills.	0.76	0.83
8	Work with pupils with special educational needs is a worthwhile use of my time.	0.70	0.87
The reliability by Cronbach's alpha for the Dimension (*all of the correlation is significant at (0.01))		0.94	0.96

Reliability: Simple Correlation and Cronbach's Alpha for the Questionnaire Items and Dimensions

	Assessment, Evaluation and Recording	Level of Agreement	My need/wish for training in this area is:
9	I am able to construct a pupil profile based on observational data (formal and informal data).	0.87	0.92
10	I can identify potential special educational needs (sensory, physical, intellectual and behavioural).	0.92	0.95
11	I can evaluate the academic performance of the pupil, relative to my chosen goals and objectives.	0.77	0.93
12	I can fairly and accurately assess the overall progress of every pupil, including those with SEN.	0.81	0.86
The reliability by Cronbach's alpha for the Dimension(* all of the correlation is significant at 0.01)		0.93	0.97

Reliability: Simple Correlation and Cronbach's Alpha for the Questionnaire Items and Dimensions

	Assessment, Evaluation and Recording	Level of Agreement	My need/wish for training in this area is:
13	I can set appropriate educational goals and objectives for pupils with SEN.	0.85	0.90
14	I can organise a flexible programme of instruction to meet the needs of all pupils.	0.96	0.94
15	I am able to identify material, equipment, and training that will aid me in teaching special needs pupils.	0.86	0.89
16	I have the skills needed to assess the effectiveness of instructional material and activities for special needs pupils.	0.89	0.94
The reliability by Cronbach's alpha for the Dimension (* all of the correlation is significant at (0.01)		0.96	0.98

Reliability: Simple Correlation and Cronbach's Alpha for the Questionnaire Items and Dimensions

	Curriculum Adaptation	Level of Agreement	My need/wish for training in this area is:
17	I can analyse curriculum materials to assess their appropriateness for a pupil with SEN.	0.97	0.94
18	I can develop appropriate learning materials to meet the individual needs of a pupil with SEN.	0.97	0.94
The reliability by Alpha Cronbach for the Dimension(* all of the correlation is significant at 0.01)		0.98	0.95

Reliability: Simple Correlation and Cronbach's Alpha for the Questionnaire Items and Dimensions

	Instructional Competencies	Level of Agreement	My need/wish for training in this area is:
19	I can use varied teaching methods to meet the needs of the pupil.	0.86	0.87
20	I can analyse the concepts for the topic I am teaching.	0.83	0.88
21	I can develop an appropriate instructional sequence for a pupil with special needs, based on the analysis of tasks and competencies.	0.91	0.89
22	I can organize a flexible programme of instruction to meet the needs of all pupils.	0.92	0.72
The reliability by Alpha Cronbach for the Dimension (* all of the correlation is significant at 0.01)		0.91	0.93

Reliability: Simple Correlation and Cronbach's Alpha for the Questionnaire Items and Dimensions

	Management of Behaviour	Level of Agreement	My need/wish for training in this area is:
23	I can use teaching methods suitable to attract the attention of my pupils.	0.78	0.86
24	I can use behaviour management techniques appropriately.	0.90	0.87

25	I can provide appropriate positive reinforcement to motivate pupils with SEN.	0.92	0.88
26	I can devise and implement strategies to promote the social inclusion of pupils with SEN.	0.83	0.72
The reliability by Alpha Cronbach for the Dimension (* all of the correlation is significant at 0.01)		0.92	0.91

Reliability: Simple Correlation and Cronbach's Alpha for the Questionnaire Items and Dimensions

	Use of Resources (Materials and Human)	Level of Agreement	My need/wish for training in this area is:
27	I can access community resources relevant to SEN using my social skills.	0.79	0.81
28	I feel that it is important to use parents or guardians as partners in instructional efforts.	0.84	0.83
The reliability by Alpha Cronbach for the Dimension (* all of the correlation is significant at 0.01)		0.83	0.84

Reliability: Simple Correlation and Cronbach's Alpha for the Questionnaire Items and Dimensions

	Counselling, Communication and Collaboration	Level of Agreement	My need/wish for training in this area is:
29	I can give constructive feedback to colleagues regarding working with pupils with SEN.	0.78	0.80
30	I can communicate and co-operate effectively with other professionals, e.g. doctor, social worker, psychologist, to help pupils with SEN.	0.84	0.86
31	I can advise parents about their children's progress and how to help them at home.	0.90	0.84
32	I can guide pupils with SEN in the development of positive self-concept.	0.86	0.91

The reliability by Alpha Cronbach for the Dimension (*all of the correlation is significant at 0.01)	0.91	0.90
--	------	------

Reliability: Simple Correlation and Cronbach's Alpha for the Questionnaire Items and Dimensions

	Personal Skills	Level of Agreement	My need/wish for training in this area is:
33	I have self-confidence because I exhibit a high degree of maturity.	0.92	0.92
34	I show empathy, tact and sensitivity in my dealings with pupils.	0.96	0.94
35	I am flexible and willing to learn from experience.	0.96	0.93
The reliability by Alpha Cronbach for the Dimension (*all of the correlation is significant at 0.01)		0.97	0.96

Reliability: Simple Correlation and Cronbach's Alpha for the Questionnaire Items and Dimensions

	Future Educational Opportunities	Level of Agreement
36	In the future I would be interested in an in-service training in the area of special educational needs.	0.82
37	I would like to receive individual advice from consultants and/or specialists in relation to special educational needs.	0.72
38	I would like to attend workshops and seminars (1-3 days) in the area of SEN whenever available.	0.73
39	I would like to observe experienced special educational needs teachers.	0.87
40	I would like to receive teacher training materials (work, books, videos, etc.)	0.74
The reliability by Alpha Cronbach for the dimension (all of the correlation is significant at 0.01)		0.95

Reliability: Simple Correlation and Cronbach's Alpha for the Questionnaire Items and Dimensions

Appendix 5.9

Questionnaire test and re-test split-halves reliability tests

Reliability

***** Method 1 (space saver) will be used for this analysis *****

RELIABILITY ANALYSIS - S C A L E (Test-retest)

Reliability Coefficients

N of Cases = 207.0 N of Items = 40 Alpha = .9841

Reliability

***** Method 1 (space saver) will be used for this analysis *****

RELIABILITY ANALYSIS - SCALE (SPLIT)

Reliability Coefficients

N of Cases = 207.0 N of Items = 40

Correlation between forms = .9518 Equal-length Spearman-Brown = .9753

Guttman Split-half = .9571 Unequal-length Spearman-Brown = .9753

20 Items in part 1

20Items in part 2

Alpha for part 1 = .9856

Alpha for part 2 = .944

Appendix 5.10

Questionnaire, Arabic version

استبيان آراء معلمي مرحلة الأساس نحو مجالات التدريب اللازمة لتلبية احتياجات التلاميذ ذوي الحاجات

التعليمية الخاصة وكيفية دمجهم في الفصول الدراسية وبرامج النشاط

إعداد

ناجي حمزة بلدو

معهد التربية – جامعة لندن

الجزء الأول

البيانات الشخصية والمهنية

ارشادات

ضع علامة (✓) في المربع الخاص بالإجابة عن البيانات التالية:

1- العمر

(أ) أقل من 30 سنة ☐

(ب) 30-39 سنة ☐

(ج) 40-49 سنة ☐

(د) 50 سنة فما فوق ☐

2- الخبرة في مجال التدريس العام

(أ) أقل من خمس سنوات ☐

(ب) 5-10 سنوات ☐

(ج) أكثر من 10 سنوات ☐

3- المؤهل التعليمي

(أ) شهادة المرحلة الابتدائية (معاهد تدريب المعلمين) ☐

(ب) دبلوم التربية (سنة بعد البكالوريوس) ☐

(ج) بكالوريوس التربية ☐

(د) دبلوم التربية (سنتين) ☐

(هـ) مؤهل آخر (أذكره) _____

4- المستوى الذي تقوم بتدريسه (إذا كنت تدرس أكثر من مستوى الرجاء ذكر كل الفصول التي تدرسها)

الفصل/ المستوى

1.	4.	7.	
2.	5.	8.	
3.	6.	9.	

5- هل لديك أي خبرة في تدريس ذوي الاحتياجات التعليمية الخاصة؟

نعم ☐ لا ☐

إذا كانت اجابتك (نعم) فكم مدة التدريب التي شاركت فيه؟

(أ) في المدارس الخاصة بذوي الحاجات الخاصة. شهر _____ سنة _____

(ب) في فصول ذوي الحاجات الخاصة بالمدارس العادية. شهر _____ سنة _____

(ج) في المدارس العادية. شهر _____ سنة _____

6- هل تعتقد أنك تتلقى الدعم الكافي الذي يعينك على تدريس ذوي الحاجات الخاصة من الجهات المذكورة أدناه؟

جبهة الدعم	نعم	إلى حد ما	لا
من جمعيات خيرية وجهات أخرى خارج المدرسة			
من إدارة المدرسة			
من الوالدين وأولياء الأمور			

الجزء الثاني

التدريب الرسمي

إرشادات:

ضع علامة (✓) في المربع الذي يتفق مع رأيك مع استكمال البيانات المطلوبة إذا وجدت.

(أ) هل حصلت على أي نوع من التدريب في كفاءة تدريس ذوي الحاجات الخاصة في فترة دراستك أو قبل التحاقك بمهنة التدريس؟

نعم ☐ لا ☐

*إذا كانت اجابت (نعم) ما هي مدة التدريب؟

عدد ساعات التدريب	مدة التدريب	موضوع التدريب
		أ-
		ب-
		ج

(ب) في العاملين الماضيين، هل حصلت أثناء الخدمة على أي تدريب يتعلق بذوي الحاجات الخاصة؟

نعم ☐ لا ☐

* إذا اجبت (نعم) الرجاء ذكر وصف مختصر لموضوع التدريب (مثلاً عملية الدمج واعداد الدروس والتقويم) ونوع التدريب (مثلاً ورشة عمل، سمنار) ومدة التدريب.

عدد ساعات التدريب	مدة التدريب	موضوع التدريب
		أ-
		ب-
		ج

الاتجاهات		درجة الموافقة								حاجتي أو رغبتى للتدريب في هذا المجال			
		لا أوافق بشدة	لا أوافق	لا أوافق	متردد	أوافق	أوافق بشدة	لا أحتاج مطلقاً	لا أحتاج	متردد	أحتاج	أحتاج بشدة	
5	لدي استعداد للتعامل مع بذوي الحاجات الخاصة وتدريسهم												
6	أجد راحة في التعامل بذوي الحاجات الخاصة												
7	أشعر بأهمية دمج ذوي الحاجات الخاصة لتحسين مهاراتهم الدراسية												
8	أعتبر أن تخصيص وقت للعمل مع ذوي الحاجات الخاصة أمر جدير بالاهتمام												
9	تدريس ذوي الحاجات الخاصة عملية واضحة المعالم بالنسبة لي												
أي ملاحظات أخرى فيما يتعلق بكفاءة الاتجاهات													أي ملاحظات أخرى فيما يتعلق بحاجتك أو رغبتك للتدريب في هذا الجانب

الجزء الثالث

ارشادات

* اقرأ بعناية العبارات التالية ثم حدد مستوى قدرتك على تلبية احتياجات ذوي الحاجات التعليمية الخاصة ومدى حاجتك للتدريب في الكفاءات المذكورة

* يرجى الاجابة على كل عبارة بغض النظر عن ما إذا كنت تستخدم هذه الكفاءة أو المهارة في الوقت الحاضر أو لا وذلك بوضع علامة (✓) أمام العبارة التي تعبر عن رأيك.

المعرفة	درجة الموافقة					حاجتي أو رغبتى للتدريب في هذا المجال				
	لا أوافق بشدة	لا أوافق	لا	متردد	أوافق	أوافق بشدة	لا أحتاج مطلقاً	لا أحتاج	متردد	أحتاج بشدة
1 لدي معرفة بخصائص نمو التلاميذ										
2 لدي معرفة بنظريات التعلم المتعلقة بذوي الحاجات الخاصة										
3 لدي المام باللوائح والقوانين المتعلقة بذوي الحاجات الخاصة										
4 لدي الوعي الكافي بمسئولياتي الأخلاقية تجاه ذوي الحاجات الخاصة										
أي ملاحظات أخرى فيما يتعلق بكفاءة المعرفة					أي ملاحظات أخرى فيما يتعلق بحاجتك أو رغبتك للتدريب في هذا الجانب					

التقويم والتقدير وتسجيل المعلومات		درجة الموافقة								حاجتي أو رغبتى للتدريب في هذا المجال			
		لا أوافق بشدة	لا أوافق	متردد	أوافق بشدة	لا أوافق بشدة	لا أوافق	متردد	أوافق بشدة	لا أوافق بشدة	لا أوافق	متردد	أحتاج بشدة
10	أستطيع التعرف على نوع الاحتياجات الخاصة للتلاميذ (شعورية، جسمية، فكرية ، سلوكية)												
11	أستطيع تقييم الأداء الدراسي لذوي الحاجات الخاصة فيما يتعلق بالأهداف وموضوعات الدراسة												
12	أستطيع تقييم التقدم العام لكل تلميذ ويشمل ذلك ذوي الحاجات الخاصة												
13	لدي المقدرة على تكوين صورة عن تلاميذي من المعلومات الرسمية وغير الرسمية عنه وكذلك التي أحصل عليها من مراقبته												
أي ملاحظات أخرى فيما يتعلق بكفاءة التقويم والتقدير وتسجيل المعلومات		أي ملاحظات أخرى فيما يتعلق بحاجتك أو رغبتك للتدريب في هذا الجانب											

تقييم التدريس وتنظيمه وإدارته		درجة الموافقة					حاجتي أو رغبتى للتدريب في هذا المجال			
		لا أوافق بشدة	لا أوافق	متردد	أوافق	أوافق بشدة	لا أحتاج مطلقاً	لا أحتاج	متردد	أحتاج بشدة
14	أستطيع وضع أهداف تعليمية مناسبة لذوي الحاجات الخاصة									
15	أستطيع تنظيم برنامج دراسي مرن يتناسب مع ذوي الحاجات الخاصة									
16	أستطيع أن أحدد المادة العلمية والأدوات التعليمية المناسبة لتدريس ذوي الحاجات الخاصة									
17	لدي المقدرة على استخدام نتائج التقييم كقاعدة لوضع وتعديل الأهداف الخاصة بتعليم ذوي الحاجات الخاصة									
أي ملاحظات أخرى فيما يتعلق بكفاءة تقييم التدريس وتنظيمه وإدارته		أي ملاحظات أخرى فيما يتعلق بحاجتك أو رغبتك للتدريب في هذا الجانب								

ملائمة المنهج الدراسي		درجة الموافقة						حاجتي أو رغبتي للتدريب في هذا المجال	
		لا	أوافق بشدة	لا أوافق	متردد	أوافق	أوافق بشدة	لا	أحتاج بشدة
18	أستطيع تحليل محتويات المنهج مدى ملائمتها لنوعي الحاجات الخاصة								
19	أستطيع تطوير مواد تعليمية مناسبة تتوافق مع الاحتياجات الفردية لنوعي الحاجات الخاصة								
أي ملاحظات أخرى فيما يتعلق بكفاءة ملائمة المنهج للتدريب في هذا الجانب الدراسي									

الكفاءات التدريسية		درجة الموافقة						حاجتي أو رغبتي للتدريب في هذا المجال	
		لا	أوافق بشدة	لا أوافق	متردد	أوافق	أوافق بشدة	لا	أحتاج بشدة
20	أستطيع تحليل الخطوات التدريسية للمهام التي أعلمها للتلاميذ								
21	أستطيع إنشاء منظومة تعليمية مناسبة لنوعي الحاجات الخاصة								
22	أستطيع استخدام طرق تعليمية مختلفة للتلائم احتياجات التلاميذ ذوي الحاجات الخاصة								

أي ملاحظات أخرى فيما يتعلق بالكفاءات التدريسية	أي ملاحظات أخرى فيما يتعلق بحاجتك أو رغبتك للتدريب في هذا الجانب
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ضبط السلوك		درجة الموافقة					حاجتي أو رغبتني للتدريب في هذا المجال				
		لا أوافق بشدة	لا أوافق	متردد	أوافق	أوافق بشدة	لا أحتاج مطلقاً	لا أحتاج	متردد	أحتاج	أحتاج بشدة
23	لدي القدرة على استخدام طرق التدريس المناسبة لجذب انتباه التلاميذ										
24	أستطيع استخدام أساليب التحكم في سلوك التلاميذ بكفاءة										
25	أستطيع تقديم التعزيزات الايجابية المناسبة لتحفيز التلاميذ ذوي الحاجات الخاصة										
26	أستطيع اعداد وتنفيذ الاستراتيجيات اللازمة لدمج ذوي الحاجات الخاصة اجتماعياً										
أي ملاحظات أخرى فيما يتعلق بكفاءة ضبط السلوك		أي ملاحظات أخرى فيما يتعلق بحاجتك أو رغبتك للتدريب في هذا الجانب									

استخدام الموارد (البشرية والمادية)		درجة الموافقة					حاجتي أو رغبتى للتدريب في هذا المجال				
		لا أوافق بشدة	لا أوافق	متردد	أوافق بشدة	أوافق	لا أحتاج مطلقاً	لا أحتاج	متردد	أحتاج	أحتاج بشدة
27	يمكنني الوصول للموارد الاجتماعية المتعلقة بذوي الحاجات الخاصة مستخدماً علاقاتي الاجتماعية										
28	أشعر أنه من المهم اشراك الوالدين وأولياء الأمور فيما يتعلق بدراسة أبنائهم										
أي ملاحظات أخرى فيما يتعلق بكفاءة استخدام الموارد (البشرية والمادية)		أي ملاحظات أخرى فيما يتعلق بحاجتك أو رغبتك للتدريب في هذا الجانب									

التوجيه، الاتصال والتنسيق		درجة الموافقة					حاجتي أو رغبتى للتدريب في هذا المجال				
		لا أوافق بشدة	لا أوافق	متردد	أوافق بشدة	أوافق	لا أحتاج مطلقاً	لا أحتاج	متردد	أحتاج	أحتاج بشدة
29	يمكنني اعطاء زملائي خبرات عملية مفيدة في كيفية تدريس ذوي الحاجات الخاصة										
30	يمكنني التواصل والتعاون بفاعلية مع المختصين في المجالات										

										المختلفة لمساعدة ذوي الحاجات الخاصة	
										31	استطيع نصح الوالدين في كيفية مساعدة أبنائهم بالمنزل لتطوير مستوياتهم الدراسية
										32	استطيع مساعدة التلاميذ ذوي الحاجات الخاصة على تنمية الشعور الذاتي والثقة في النفس
أي ملاحظات أخرى فيما يتعلق بكفاءة التوجيه، الاتصال والتنسيق						أي ملاحظات أخرى فيما يتعلق بحاجتك أو رغبتك للتدريب في هذا الجانب					

المهارات الشخصية		درجة الموافقة					حاجتي أو رغبتني للتدريب في هذا المجال				
		لا أوافق بشدة	لا أوافق	متردد	أوافق بشدة	أوافق مطلقاً	لا أحتاج	متردد	أحتاج	أحتاج بشدة	
33	أتمتع بقدر عالٍ من النضج والثقة بالنفس										
34	يمكنني التعاطف والتعامل بلباقة ومراعاة مشاعر تلاميذي										
35	أمتلك المرونة والاستعداد للتعلم من الخبرة والتجارب										
أي ملاحظات أخرى فيما يتعلق بكفاءة المهارات الشخصية						أي ملاحظات أخرى فيما يتعلق بحاجتك أو رغبتك للتدريب في هذا الجانب					

الجزء الرابع

فرص التطور التربوي المستقبلية

ارشادات:

ضع علامة (✓) في المربع الذي يعبر عن رأيك بشكل كبير فيما يلي:

درجة الموافقة					الفرص المستقبلية
أوافق بشدة	أوافق	متردد	لا أوافق	لا أوافق مطلقاً	
					36 أرغب مستقبلاً في الاشتراك في تدريب اضافي في مجال الحاجات التربوية الخاصة
					37 أرغب في الحصول على ارشادات ونصائح من الموجهين والمختصين في مجال الحاجات التربوية الخاصة
					38 أرغب في الحصول على مواد علمية خاصة بتدريب المعلمين (كتب، فيديو إلخ)
					39 أرغب في حضور ورش عمل (1-3 أيام) في مجال تعليم ذوي الحاجات الخاصة
					40 أرغب في الحصول على تفرغ خاص خلال العام الدراسي للتدريب في مجال التربية الخاصة
أي ملاحظات أخرى حول فرص التدريب في المستقبل					

شكراً على تعاونكم وحسن تجاوبكم،،،،،

Appendix 5.11

Summary of responses of education supervisors, teacher trainers and teachers to interview questions (Exploratory Study)

1- Educational supervisors

Question 1: How long have you been working in the general education field?

The responses of the three supervisors to Question 1 showed that their periods of experience in working in general education ranged between 10 and 15 years.

Question 2: How long have you been an educational supervisor?

The responses of the three supervisors to question 2 showed that their experience as educational inspectors ranged from 3 to 8 years.

Question 3: What subjects did you specialise in at college/university?

Two of the three educational supervisors were specialists in teaching Arabic language and the third was a specialist in mathematics.

Question 4: What subject(s) do you currently supervise in the school?

The two Arabic language specialists worked in supervising teaching Arabic language in basic schools at Khartoum, while the mathematics supervisor supervised the teaching of mathematics by basic teachers in the same area.

Question 5: How many schools do you inspect?

The responses of the three supervisors to question 5 showed that the number of schools they inspect ranged between 15 and 20.

Question 6: How many teachers does that involve?

The number of teachers involved in their inspection ranged from 15 to 60 teachers.

Question 7: How often do you visit each school?

The number of visits to each school was 3 to 5 per term.

Question 8: On your visits to school, to what extent have you noticed teachers trying to assist pupils who have SEN?

None of the basic school supervisors had noticed any teachers trying to assist pupils who have SEN in their classrooms.

Question 9: How well prepared do you think teachers are in general to deal with SEN?

The three educational supervisors agreed that none of the teachers they supervised were prepared to deal with SEN.

Question 10: What sort of difficulties do you think mainstream teachers face in dealing with pupils with SEN?

The three supervisors agreed that the most common difficulties facing mainstream teachers in dealing with pupils with SEN were as follows:

There are no pre-service courses in Special Education for mainstream teachers as part of their college studies.

The programme of in-service training for basic school teachers concentrates only on teaching for normal pupils.

There is insufficient awareness among educational administrators of the problems of pupils with SEN.

Teachers do not have suitable tools to assess and evaluate pupils with SEN.

There are insufficient periodicals related to special education in general and pupils with SEN in particular.

Question 11: To what extent are you and your colleagues, as inspectors, able to advise and support such teachers?

The three supervisors thought that they had the ability to advise and support teachers in dealing with pupils with SEN but they added that they lacked information and knowledge related to SEN, gained from their working experience.

Question 12: What other sources of advice and support are available to teachers to help them to deal with SEN?

There is a special education sector in the Sudan Ministry of Education which can help and support teachers in dealing with SEN. There are also some non-governmental organisations (NGOs) dealing with handicapped persons, such as Amal, Alnoor and Cheshire.

Question 13: How accessible and effective are those sources?

The three supervisors doubted the availability of advice and support to teachers to help them in dealing with SEN. They thought that these sources were not sufficiently comprehensive to cover the majority of basic school teachers and not effective enough to achieve the desired aims in teacher training.

Question 14: Do you think there is a need for teachers to have more pre-service preparation to deal with SEN? If so, in what way?

The respondents suggested that there is a need to include some courses in special education in pre-service teacher training programmes at Faculties of Education in Sudan. These courses must be sufficient to produce capable teachers who in their own can deal with pupils with SEN effectively.

Question 15: Do you think there is a need for more training advice or support for in-service teachers in dealing with SEN? If so, in what way?

The three supervisors thought that there was a great need for more training, advice or support for in-service teachers in dealing with pupils with SEN. They suggested establishing regular and compulsory in-service training programmes. They also suggested establishing programmes discussing new trends in teaching pupils with SEN, as well as the use of aids which could help teachers to teach those pupils effectively.

2. Teachers trainer responses.

Question 1: How long have you been a teacher trainer?

About 25 years.

Question 2: How long have you worked in the field of SEN?

Around the same period.

Question 3: Can you tell me about your involvement with the preparation and delivery of courses related to SEN, whether as a designer, a teacher, or an evaluator?

I am involved in all three of them, planning, teaching and evaluating.

Regarding the planning, it is necessary to know: 1) the nature of the group whom the teachers are going to deal with: students with SEN; 2) the skills and qualifications that need to be taught by the trainees which should match the nature of the target group, 3) how to apply the skills and qualifications to the children concerned, and 4) the activities and experiences needed to help with gaining the skills and qualifications and to undertake a continuous evaluation of the four steps mentioned above.

As for the training, it depends mainly on the implementation of the designed plan. The plan is usually prepared in detail and it contains the aims, activities, skills, experiences, follow-up, evaluation and revision and modification in the light of the follow-up and evaluation.

As far as the evaluation stage is concerned, it is of course a continuous procedure that takes place at the same time as the implementation of the plan, going on from the beginning and throughout the different stages, including the follow-up. This will help in the implementation of any necessary changes or modification, depending on the outcome of the evaluation.

Question 4: There is an increasing trend world-wide to include pupils with special educational needs in mainstream schools and classrooms, and it seems likely that at some stage, Sudan will follow suit. Even without integration or inclusion, it is likely that mainstream schools already contain some pupils with SEN - perhaps those with a mild to moderate mental or physical impairment who do not qualify for admission to a special school, or pupils with emotional or behavioural problems. With this in mind, can you tell me what special knowledge, skills and attitudes mainstream teachers need to deal with such children?

The teachers of normal classes need to know about the psychology of children with special educational needs. It is necessary to know about the nature of the child's disability and its psychological and mental consequences. Also, it is necessary to provide the essential technical aids and to be aware of the social demands needed to tackle the consequences of disability.

It is important for teachers to have the basic knowledge and skills which help them to undertake their jobs in dealing with children with special needs. Some of these skills are inter-communication, understanding, knowledge, acceptance, careful listening, love and patience.

The positive acceptance of children with special needs is needed, to give them the chance to be involved in society. Moreover, it is necessary to understand and to follow up what is going on world-wide regarding these matters, dealing with the educational needs of children with special needs. However, since every local society has its own characteristics, it is necessary to use the knowledge according to the nature of every individual local society.

Question 5: To what extent do you think current pre-service training programmes prepare mainstream teachers to meet SEN?

The pre-service training programmes can play a very important role in training teachers to work with children with special needs. Through these programmes, it is possible to select qualified people who are suitable to work in the area of children with special needs. Then the next step is to equip those selected teachers with the needed skills and knowledge which will help them to undertake their jobs in accordance with the traditions and customs of their local society.

Question 6: What role is played by in-service training in equipping mainstream teachers to deal with SEN?

Training helps with the accuracy of the job. It helps in following up knowledge relating to the psychological communication dealing with children who have special needs. By so doing, teachers can gain any new knowledge in this area for the benefit of the children.

Question 7: In your opinion, could teacher training institutions and agencies do more to prepare teachers to help pupils with SEN? If so, how?

To do more in preparing the teachers, some points should be considered:

1. good selection of the teachers,
2. preparation and qualification needed for the teachers,
3. good training,
4. evaluation and follow-up.

Question 8: Are there any particular problems or constraints in the way of providing such training? Can you elaborate?

There are no problems as long as the job is given to a qualified and well trained teacher who keeps up-to-date with new knowledge in this area.

Question 9: What should be done pre-service to prepare teachers for teaching SEN?

- good selection of the teachers,
- good qualifications,
- willingness to work in this area,
- readiness to follow up new knowledge in this area.

Question 10: What should be done in-service to prepare teachers for teaching SEN?

- to provide teachers with a chance to gain qualifications,
- follow-up to make sure that teachers are still competent to do their job,
- continuous evaluation and applying the principles of reward and punishment rules.

3- Teachers Summary of Responses

Question 1: Do you currently teach, or have you ever taught, in the mainstream classroom, any pupils whom you think have special educational needs? Can you give any examples of the sorts of special needs you have encountered?

All three teachers had taught or were currently teaching children with SEN. Two specifically mentioned lack of understanding, one mentioned children with hearing and speech difficulties, and one noted that children with special needs may be socially isolated, lacking confidence to interact with their peers.

Question 2: What particular difficulties or challenges do you face in teaching these children? e.g. in relation to their learning needs, their behaviour, their psychological/emotional needs.

All three interviewees noted the demands on their time made by pupils with SEN; two noted that this sometimes raised the difficulty of maintaining a balance between the needs of these children and others who do not have SEN.

Question 3: Which aspect of teaching or interacting with children with SEN do you find the most difficult? Can you suggest any reason for that?

All three teachers found children with limited understanding the most difficult to deal with.

Question 4: Can you give examples of any particular methods or approaches you use in teaching children with special educational needs?

The three teachers had different approaches to dealing with pupils with SEN. One tried to allocate extra time for them; another emphasised the importance of involving them in class activities such as discussion; the third had no particular approach but expressed the hope that in the future, modern technological aids might be used to benefit those children.

Question 5: Do you think your pre-service training prepared you adequately to teach children with SEN. If yes, in what way? If not, why not? What were the deficiencies?

All respondents answered in the negative, and one commented that before the interview, he had not even properly known what was meant by the term, thinking it simply meant "pupils who understand nothing".

Question 6: What in-service training opportunities are available to mainstream teachers to help them teach children with SEN in the mainstream classroom?

Again, all three teachers said no, though one thought that information about individual differences, in teaching methods courses, might be applicable to teaching pupils with SEN.

Question 7: Have you ever attended any sort of in-service training in relation to SEN? If no, is that because you have not been given an opportunity or for some other reason? If yes, can you tell me a bit about that training? (where, when, content). How satisfied were you with the course? To what extent did it meet your needs?

None of the three had attended such courses and two had not heard of any taking place.

Question 8: If you have a problem in relation to a child with SEN, what do you do? Is there anyone you can ask for advice? Would you look for ideas in books and journals? Or do you try to work out a solution yourself?

One of the teachers said he would try to solve the problem himself. Two mentioned consulting more experienced colleagues, and reading relevant references. One suggested that he might discuss the problem with the child's parents.

Question 9: Is there any kind of information that you need, or any skills that you would like to develop, to help you teach children with SEN?

One teacher said that information was available in libraries and had himself made use of it; another said it was available, but he had not felt the need to use it; the third indicated a lack of resources in the school, and the fact that relevant books and articles were often in English.

Question 10: What do you think are the priorities in training teachers to include pupils with SEN? In other words, what should the training most concentrate on?

All three teachers thought attention should be paid to training teachers in recognising SEN. One called for more research in the field of SEN and another thought it was still necessary to establish exactly what was meant by the term.

Appendix 5.12

Revised interview schedule for Educational Supervisors (Inspectors)

Question 1: How long have you been working in the general education field?

Question 2: How long have you been a supervisor?

Question 3: What subjects did you specialise in at training institute/university?

Question 4: What subject(s) do you currently supervise?

Question 5: How many schools do you inspect a year?

Question 6: How many teachers does inspection involve?

Question 7: How often do you visit each school?

Question 8: Are there any pupils with SEN in any of the school you visit?

Question 9: To what extent do teachers try to give special help to pupils with SEN?

Question 10: How well prepared are teachers in general, to teach pupils with SEN?

Question 11: What sort of difficulties do mainstream teachers face in teaching pupils with SEN?

Question 12: What training and/or experience have you had in the area of SEN?

Question 13: Is your current level of knowledge about SEN sufficient enough to enable you to advice and support teachers in this area?

Question 14: Have you ever been asked for such advice, or do you volunteer it?

Question 15: What other sources of advice and support are available to help teachers meet the needs of pupils with SEN?

16. How effective and accessible are these sources?

17. Do you think there is a need for more in-service preparation for teachers to include pupils with SEN?

18. Do you think there is a need for more training, advice or support for teachers to include pupils with SEN?

19. What are the priorities for training in SEN?

Appendix 5.13

Revised interview schedule for Teacher Trainers

Question 1: How long have you been a teacher trainer?

Question 2: How long have you worked in the field of SEN?

Question 3: How do you describe your involvement with preparation and delivery of training courses in SEN.

Question 4: What special knowledge, skills and attitudes do basic school teachers need in order to include pupils with SEN in mainstream classroom?

Question 5: To what extent do existing pre-service training programmes prepare mainstream teachers to meet the requirements of pupils SEN?

Question 6: To what extent do existing in-service training programmes prepare mainstream teachers to meet the requirements of pupils SEN?

Question 7: What more can be done by teacher training institutions and agencies to prepare teachers for inclusive classrooms?

Question 8: What are the problems and constraints that face provision of training programmes in the area of SEN?

Question 9: What should be done pre-service to prepare teachers for teaching pupils with SEN?

Question 10: What should be done in-service to prepare teachers for teaching pupils with SEN?