

**THE EFFECT OF INTERVENTION ON THE SOCIAL INTERACTION OF
PUPILS IN INTEGRATED BASIC SCHOOLS.**

By

John Tox Jafete Ngwata Phiri

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**A Thesis Submitted to the University of Zambia in Fulfillment of the
Requirements of the Degree of Doctor of Philosophy in Special Education.**

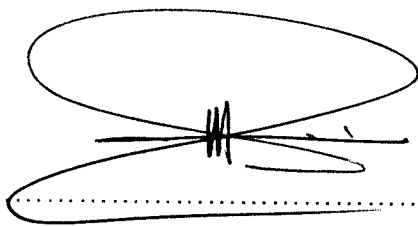


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ABSTRACT

The study investigated the social interaction between pupils with intellectual disabilities in special units and their mainstream peers. Observations were carried out in two situations. One was the experimental situation where the peer tutoring intervention was implemented in order to increase interaction. The other was the natural situation where no interventions were implemented. Separated by baselines, the peer tutoring intervention was tested. In addition a questionnaire to mainstream pupils was administered and guided interviews were conducted with teachers and head teachers.

The results showed that peer tutoring led to a significant increase in social interaction in both situations. These gains were maintained in both situations at one-month follow up.

In addition, the attitudes towards special unit pupils of the peer tutors who had interacted with the special unit pupils in the peer-tutoring programme were compared to a comparable group of mainstream pupils who had not been in regular contact. The peer tutors showed significantly more positive attitudes than a comparable group of mainstream pupils who had not been in regular contact. This was particularly significant with males in the two groups.

Lastly, special education teachers, mainstream teachers and head teachers in the schools observed that the peer tutoring intervention had a significant increase on the social interaction between special unit pupils and their mainstream peers.

The results of the study are discussed in the light of their implications for the design of intervention programmes for pupils with intellectual disabilities in *Zambian basic schools*. Based on the above findings, recommendations to promote social interaction between unit pupils and their mainstream peers are made to the Ministry of Education and school managers.

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DEDICATION

To my dear elder brother Leonard Japhet Phiri also fondly known as “a Wiske Nkaiko”, who rescued me from herding cattle and introduced me to the modern school system.

To the many children with intellectual disabilities in basic schools and also to their teachers who daily struggle to make the lives of these “God’s angels” a little more dignified.

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- c) Professor Garry Hornby formerly of the University of Hull (U.K.) now at the University of Canterbury (New Zealand) for introducing me to the fields of special education and research methodology at the University of Hull.
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LIST OF ABBREVIATIONS

AAMR:	American Association on Mental Retardation.
CSEN:	Children with Special Educational Needs
DTEVT:	Department of Technical Education and Vocational Training
EFA:	Education for All
EMR:	Educable Mentally Retarded
EPSSE:	Educational Psychology, Sociology and Special Education
ESSP:	Education Sector Support Programme
GRZ:	Government of the Republic of Zambia
IEP:	Individualized Education Programme
INSPRO:	Inclusive Schooling Programme
IQ:	Intelligence Quotient
JSSLE:	Junior Secondary Leaving Examinations
MOE:	Ministry of Education
MSTVT:	Ministry of science, Technology and Vocational Training
UBE:	Universal Basic Education
UNZA:	University of Zambia
SEN:	Special Educational Needs
TMR:	Trainable Mentally Retarded
WPBIC:	Walker Problem Behaviour Identification Checklist.

CHAPTER ONE

INTRODUCTION

1.0 General

The chapter begins with a brief background on the integration arrangement of pupils with intellectual disabilities (also called mental retardation) and identifies their social interaction with their mainstream peers. Thereafter, the chapter presents the problem under investigation, the purpose of the study, the research questions and the objectives of the study. The chapter ends by giving a brief description of the study methodology, which is given more detailed treatment in chapter five.

1.1 Background

The incentive to undertake an in-depth study to examine whether a specific intervention is necessary and effective in promoting social interaction between pupils with intellectual disabilities and their mainstream peers in integrated basic schools arose, largely, as a result of interest generated in the writer during the period 2000 – 2001 when as Acting Head of the Department of Educational Psychology, Sociology and Special Education in the School of Education of the University of Zambia, the writer sat on the Special Needs/Inclusive Education sub-committee of the Education Sector Support Programme Phase III (ESSP III). The component provided support to the Ministry of Education to improve the capacity to plan, implement and monitor special needs/inclusive education in the form of introducing inclusive schooling programmes (INSPRO) district by district in North-Western and Western provinces of Zambia.

The purpose of the component was to improve equal study opportunities for pupils with special needs through: a) increasing access to education for pupils with special needs, b) improving the learning performance of these pupils, c) removing barriers that hinder their participation, and d) establish links with other

government ministries, non-governmental organizations (NGOs), and other institutions in order to improve special needs services (Kasonde-N'gandu and Moberg, 2001).

Prior to the above stated involvement with ESSP III, the writer was exposed to the field of special education during the course of studies, which led to the award of a Master's degree at the University of Hull, United Kingdom, in 1995. The course of studies at the University of Hull covered many themes, among which the problem of integrating pupils with intellectual disabilities into mainstream schools formed a major part.

The writer's experiences at the University of Hull and ESSP III enabled him to come to some understanding of the social interaction problems pupils with intellectual disabilities faced, and had already made him think about possible interventions that would promote social interaction between these pupils and their mainstream peers.

In Zambia, pupils considered unable to benefit from formal education in the mainstream classes are enrolled full-time in either a special school or special unit attached to a mainstream school. Since the adoption of the National Policy on Education in 1996, it has been government policy to integrate pupils with disabilities into mainstream schools.

Integration does not refer to a single form of provision. Educating pupils with special needs in mainstream schools poses a challenge, which can be – and is – met in many ways such as these that Hegarty et al (1986: 72) suggest:

- (i) Mainstream class with no support.
- (ii) Mainstream class with support for teacher; care and support for pupil within class.
- (iii) Mainstream class as base; withdrawal for specialist work.
- (iv) Mainstream class as base; mainstream class part-time or Special

- unit as base; mainstream class part-time
- (v) Special unit or centre full-time
- (vi) Special school part-time; mainstream school part-time
- (vii) Special school full-time

Zambia has adopted options v and vii: Special unit full-time and special school full time respectively. As a result of the increasing implementation of the national policy on integration, many special units for pupils with disabilities have been opened in mainstream basic and high schools. For pupils with intellectual disabilities sixty - nine (69) special units have opened in basic schools countrywide. The special units enroll approximately 800 pupils. Of these, approximately 411 are boys and 389 are girls. For the purposes of this study the pupils with intellectual disabilities in the units will also be referred to as special unit pupils or unit pupils.

Of the 69 special units, six (6) are in Western and Northwestern provinces (three per province). The distribution of the special units as well as the numbers of pupils and teachers are shown in Tables 1 and 2 below:

Table 1: Pupils with intellectual disabilities in North-Western province

District	Units	Number of Pupils	Number of teachers
Solwezi	Kikombe Basic	7 (Boys 4 Girls 3)	2
Kabompo	Chiweza Basic	12 (Boys 7 Girls 5)	4
Zambezi	Chilen'ga Basic	4 (Boys 2 Girls 2)	1
TOTALS 3 Districts	3 Basic school units	23 (Boys 13 Girls 10)	7

Table 2: Pupils with intellectual disabilities in Western province

District	Units	Number of pupils	Number of teachers
Mongu	Kanyonyo Basic	9 (Boys 7 Girls 2)	1
Kaoma	Mulamatala Basic	9 (Boys 6 Girls 3)	1
Kalabo	Kalabo Basic	13 (Boys 6 Girls 7)	1
TOTALS 3 Districts	3 Basic school units	31 (Boys 19 Girls 12)	3

1.2 Statement of the problem

One finding derived from research in developmental psychology is that pupils are made competent in social interaction through being allowed to interact with competent peers. Important ingredients in this development are thought to be the presence of more socially competent peers with whom the less competent pupils can identify. These competent peers will thus act as social models whom the less competent pupils can imitate. Additionally, the less competent pupils will receive various types of feedback from their more competent peers may gradually be shaped to desirable age-appropriate standards (Bandura, 1969).

The same processes are hoped to take place when pupils with disabilities are placed with their more socially competent peers. The hope is that in this way the pupils with disabilities will automatically benefit from naturally existing processes. In fact, the frequency of social interactions between pupils with disabilities and their mainstream peers is one of the most frequently employed operational definitions of integration (e.g. Brinker and Thorpe, 1986).

However, a consistent finding from direct observational investigations of social integration efforts has been that placing pupils with disabilities and those without disabilities in the same situation is not likely to produce cross - group social interaction (Ballard et al, 1977; Cooke, Cooke, & Apolloni, 1978; Guralnick, 1976; Peck, et al, 1978; Hickson & Hardman, 2000). There is some evidence that, in the absence of specific intervention, interaction between pupils with disabilities and those without disabilities may decrease over time (e.g. Guralnick, 1980; 1981; Fredricks et al 1978; Hickson & Hardman, 2000)

Research studies on the Zambian integration programme (Kalabula, 1991; Moberg, 2000; and Kasonde-Ng'andu and Moberg, 2001) report that special units attached to mainstream basic schools run in a self-contained way and there was only limited interaction between the pupils in the unit and their mainstream peers. They observed that direct interventions to promote interaction are rare. In

addition, peer-mediated applications such as peer tutoring which are widespread in the United States of America and Europe have had little application in this country.

Implicit in these findings is that social relations between pupils in the unit and their mainstream peers were almost absent because the integration programme by and large lacked intervention strategies and that steps need to be taken to improve matters. Thus the need for specific intervention aimed at maximizing the social integration of pupils with disabilities has been recognized for some time now.

1.3 Purpose of the Study

The study examined the social interaction of pupils with intellectual disabilities (mental retardation) that are placed in special units in basic schools. The main focus was on these pupils' interaction within themselves and with their mainstream peers. Observations were carried out in two situations. In one situation (the experimental situation), manipulations were done in order to increase interaction. In another situation (the natural situation), no manipulations were done. The idea was to observe whether there would be changes in the experimental situation and whether these would be transferred to the later situation. Of special significance to the study was to establish the effectiveness of one of the implemented intervention, a peer tutor programme, in increasing social interaction in both the experimental and natural situations.

It was hoped that the findings of this study would influence the design of intervention programmes for pupils with intellectual disabilities in basic schools in Zambia. The intervention programmes are necessary because it has been generally held that pupils' positive peer relations have been associated with social competence, school achievement and general adjustment.

1.4 Objectives of the study

1.4.1 Main Objective

The overall objective of the study was to examine the effect a “Peer Tutor Programme” as an intervention strategy on the social interaction among pupils in the unit and between them and their mainstream peers.

1.4.2 The specific objectives were to:

- (i) Find out the relative effectiveness of a peer tutoring programme on the social interaction among pupils in the unit, as well as between them and their mainstream peers.
- (ii) Examine whether the intervention led to maintained effects or not.
- (iii) Measure differences in attitudes towards pupils in the unit between a group of mainstream pupils who had interacted with the pupils in the unit as peer tutors and another group of mainstream pupils who had not.
- (iv) Assess the perceptions of mainstream teachers, special education teachers and head teachers towards the social interaction among pupils in the unit and between them and their mainstream peers.

1.5 Research Questions

In order to address the four objectives listed above, the study posited five specific questions in relation to the objectives:

- 1.5.1 What was the relative effectiveness of the peer-tutoring programme on the social interaction among pupils in the unit, as well as between them and their mainstream peers?
- 1.5.2 Did the intervention lead to maintained effects or not?
- 1.5.3 Were there differences in attitudes towards pupils in the unit between a group of mainstream pupils who had interacted with pupils in the unit as peer tutors and another group of mainstream pupils who had not interacted with pupils in the unit?

1.5.4 What were the perceptions of mainstream teachers, special education teachers and Head teachers of the social interaction among pupils in the unit and between these pupils and their mainstream peers?

1.6 Methodological Framework

In order to collect relevant data to answer the questions raised in 1.4 above, the ABAB design was used in two situations (experimental and natural) In addition, a case study design was used. The designs were considered most appropriate because the investigation sought to establish the effect of a peer-tutor intervention on the social interaction and attitudes of pupils in integrated basic schools at a given point in time rather than at several points. The sample for the study was drawn from six study areas or locations: Kanyonyo, Mulamatila and Kalabo basic schools in Western province and Kikombe, Chiweza and Chilenga basic schools in North-Western province.

A detailed description of the research procedures and techniques adopted in the study is presented in Chapter Five.

1.7 Scope of the Study

The scope of the study was confined to evaluating the effectiveness of a peer-mediated intervention on the social interaction of special unit and mainstream pupils in integrated basic schools in Zambia. The study was not intended to provide an analysis of the integration policy in Zambia. Neither was it intended to evaluate the special unit arrangement as a form of integration. The study examined the question of a specific intervention to promote social interaction, whether it was necessary and effective, and how it worked. In this regard, the results of the study ought to be interpreted within the context of the pupils under investigation and should in no way be taken as a reflection of what might obtain outside pupils with mild to moderate intellectual disabilities and special units in basic schools.

1.8 Structure of the Thesis

This thesis consists of seven chapters. The first chapter introduces the study by providing background information to the investigation, stating the specific problem under investigation and giving the purpose of the study. The chapter also outlines the objectives of the study, the specific research questions and a brief summary of the methodological framework employed in data collection and analysis. Finally, the chapter presents the scope of the study.

The second chapter presents the theoretical and conceptual framework within which the study was undertaken by defining and illustrating some of the major concepts relating to the study.

The third chapter deals with the education of pupils with intellectual disabilities in Zambia and at global level. The chapter presents background information on Zambia, a brief outline of the Zambian educational system, and an overview of the history and development of special education in Zambia. Further the chapter presents an international perspective on special education provision. Finally the chapter explains the educational arrangements for pupils with intellectual disabilities in Zambia and presents profiles of the study areas (Western and North-western provinces) and the schools in the study.

The fourth chapter reviews some of the available literature that is considered to be of direct relevance to the present study in order to place the investigation within the context of similar research thereby enriching it as well as providing a justification for it.

The fifth chapter describes in detail the methodology used to collect data in order to provide answers to the questions raised in Chapter One of the study. The Chapter builds on the introduction to the methodology provided in 1.5. It also presents details relating to the type of research paradigm and research design

employed in the study, the study area and sample size, the data collection instruments and procedures as well as the data analysis process.

The sixth chapter presents the findings on the effect of the peer tutoring intervention on the social interaction on both pupils with intellectual disabilities and their mainstream peers. The presentation is arranged according to the research objectives and questions as set out in Chapter One of the report. The presentation is divided into three sections. The first and second focus on the findings from the 'experimental situation' and the 'natural situation' respectively while the third focuses on attitudes towards pupils with intellectual disabilities of mainstream pupils, teachers and head teachers..

The seventh chapter discusses the findings and draws conclusions and implications. Finally, the chapter makes recommendations with regard to the social interaction of pupils with intellectual disabilities in integrated basic schools and areas requiring further research.

“Regular schools with this inclusive orientation are the most effective means of combating discriminatory attitudes, creating welcoming communities, building an inclusive society and achieving education for all....”

(Article 12, Salamanca Statement)

“Educational policies at all levels Should stipulate that pupils with disabilities should attend their neighbourhood school that is the school that would be attended if the child did not have the disability”

(Article 18, Salamanca Framework for Action)

The 1996 Policy on special education was therefore, in essence a follow-up of the recommendations of the Salamanca World Conference on Special Needs Education. The Policy was also an attempt to reorient Zambia's educational strategies to meet special educational needs within the mainstream, as well as to work towards inclusive education.

The study was therefore, informed by the theoretical framework governing integration of pupils with disabilities into regular basic schools.

2.2 Definition of Concepts

2.2.1 Mental Retardation or intellectual disabilities

The term 'mental retardation' has been the term of choice for individuals with significant limitations in intellectual functioning and adaptive behaviour for many decades now. However, as was the case for its predecessor term 'mental deficiency' (or even earlier, such terminology as "idiot", "imbecile", and "moron"), over the past few years the term "mental retardation" has lost much professional acceptance. For example, in 1953 the National Association for the Mentally Retarded was formed. Through the years and several name changes the term "mentally retarded" was retained in the name of the organization until 1992. At

that time the organization name was changed to simply “The Arc”, eliminating any reference to mental retardation.

In 2002, the Council for Exceptional Pupils’ division on Mental Retardation and Developmental Disabilities voted overwhelmingly to change its name to “The Division on Developmental disabilities (Stodden, 2002). In deciding to remove the term “mental retardation” from their name, they concluded that the term:

- Was offensive
- Excluded many individuals with cognitive and intellectual disabilities, including those with autism
- Had been replaced by many countries with such a term as intellectual impairment or cognitive disability.

Similarly, the American Association on Mental Retardation is presently engaged in extensive discussions concerning a potential organizational name change, perhaps to “The American Association on Intellectual Disabilities.” While a final decision had not been reached by October 2002, it appears likely that the change will occur.

Regardless of the definition used, mental retardation varies along a continuum. Most individuals with mental retardation score near the 70-75 cut-off score on IQ tests, have mild cognitive impairments, and usually require few supports. Typically, those individuals with lower IQ scores require considerable supports. Since the development of the intelligence (IQ) test, around the turn of the century, people have been grouped, classified, and served on the basis of the score they received on one of these tests. One classification method, popular among educators in the 1960’s and 1970’s, distinguished educable mental retardation (EMR) from trainable mental retardation (TMR). These subgroups were directly linked to IQ scores. The EMR label was reserved for those individual who scored between 50 and 80 (the ceiling was higher in those days), and the TMR label was used for those individuals who scored between 25 and 50. The use of EMR and TMR fell out of favour, possibly because educators

knew that all people can learn and that education and training should not be separated. Also, perhaps they realized that suggesting that certain human beings were merely trainable sounded like an unfortunate comparison to animals. Since the passage of IDEA in 1975, a distinction between education and training has been blurred. Today, we understand that all pupils are capable of learning and have the right to education.

Names and terminologies change over time. Therefore, for the purposes of this thesis, the two terminologies i.e. mental retardation and intellectual disabilities will be used interchangeably throughout the thesis.

2.2.2 Intellectual Development

Special programming for pupils with mild and moderate retardation is shaped in part by the characteristics that distinguish these pupils from their age-mates. There are marked differences in factors linked to level of intellectual development, such as the ability to process information, the ability to acquire and use language and emotional development.

2.2.2.1 Ability to process information

The most obvious characteristics of pupils who are mildly or moderately retarded is their limited cognitive ability – a limitation that inevitably shows up in their academic work. These pupils may lag behind by two to five grades, particularly in language related subjects (reading, language arts). To help pupils who are not learning effectively, we must understand what is preventing them from learning. To do this, we must understand how they think – how they process information.

We look at how pupils with retardation process information to identify the areas that are most affected. Does the child's inability to learn stem from an inability to perceive stimuli effectively? Does the difficulty lie with the child's problem-solving abilities? Does the child lack expressive skills? Is

the child's executive function operating? Or does the child have problems in all these dimensions?

Many pupils who are in units have problems in central processing, or the classification of stimulus through the use of memory, reasoning, and evaluation. Classification and the organization of information seem to be a special problem for the pupils. School-age pupils quickly learn to cluster (or group) events or things into useful classes: a chair, a table, and a sofa become "furniture"; a peach, a mango a guava and a pear become "fruit". Pupils in the unit are less able to group things. They have difficulty telling how a train and an automobile are alike.

Memory, another central-processing function is also difficult for pupils in the unit. Memory problems can stem from poor initial perception or poor judgment about applying what has been stored to a given situation. Most pupils use "rehearsal" as a memory aid, saying a string of words or a poem to themselves until they remember it. Pupils in the unit are less likely to rehearse information because their ability to use short-term memory appears limited.

Executive function – the decision-making element that controls reception, central processing, and expression – is one key factor in the poor performance of pupils in the unit (Borkowski & Day, 1987). It is not so much that these pupils cannot perceive a stimulus, as it is that they cannot pay attention to the relevant aspects of a problem. It is not so much that they cannot reason, as it is that they do not have the meta-thinking strategies to organize information to a point where reasoning can take place. And it is not so much that they do not have a repertoire of responses, as it is that they too often choose an inappropriate response. Their teachers often say that they lack good judgment.

For these pupils, learning problems are not limited to a cognitive function; instead, the whole information-processing system substantially breaks down. Most pupils whose IQ is 50 or lower suffer from neurological damage that can make information processing very difficult.

2.2.2.2 Ability to acquire and use language

Pupils with mental retardation seem to have a general deficit in language development and specific problems using interpretive language. Researcher do not know how much of language delay is due to impaired cognitive abilities. Does the development of language in pupils in the unit follow the same sequence of development as it does in other pupils but at a slower rate? Or are there qualitative differences in the development of language in those who are pupils in the unit? Evidence appears to support both positions.

The language of pupils in the unit is sparse in structure and content. The problem in language development for pupils with moderate retardation tends to be much more severe. In addition to slow development, problems stem from the neurological or physiological cause of the retardation. Damage to the brain, for example, can have a devastating effect on a child's language development.

2.2.2.3 Emotional problems and social acceptance

For many years there has been a modest understanding of the link between emotional and social problems and the condition of mental retardation. But what that link signifies and what should be done about it remain issues of some dispute (Korinek & Polloway, 1993). We know that emotional and social difficulties can undermine vocational and community adjustments. We are also aware that emotional and behavioural problems probably lower the level of social acceptance experienced by pupils with mental retardation in comparison with their peers in the classroom. It is

entirely possible that this low level of social acceptance is related to the behavioural and social problems rather than to the condition of mental retardation itself.

Certain skills appear to be important for social acceptance. They include sharing, turn taking, smiling, attending and following directions. A person with social competence uses such skills appropriately in social situations. Despite the widespread acknowledgement of the problems of social adaptation and social skills development that confront young pupils in the unit, individualized education programmes (IEP) often do not address those problems. Wagner et al., 1991 found that less than 5% of the IEP objectives written for middle school pupils with mild retardation reflected either a career vocational or a social behavioural emphasis. The situation seems particularly serious in light of research indicating that a minority of the graduate pupils with mild mental retardation are employed. A real opportunity to help the pupils make good adjustments to adulthood could be missed this way.

Korinek and Polloway (1993) have called for a major emphasis in the curriculum on the development of social skills and social competencies. This means a goal not only to improve social adaptability in order to increase academic efficiency, but also to develop social skills for their own sake and because of their importance in adult adjustment.

2.2.3 Impairment, Disability and Handicap

According to Sigelman et al. (1984):

- An impairment is an identifiable defect in the basic functions of an organ or any part of the bodily system.
- Disability refers to loss or reduction of functional ability as a result of impairment. A person is said to be disabled when he/she finds it difficult to move, see hear, feel, think, control oneself or do certain things. Pupils

may have severe or mild disability, but whether or not they will grow up to be pupils in a unit depends on how their family, neighbours, teachers regard and treat them (Johnson 1993)

- A Handicap refers to the problems a person with a disability or impairment encounters in interacting with the environment. A disability may pose a handicap in one environment but not in another. It is also important to note that a handicap can result because of societal attitudes. For example, generally, schools in Zambia are built in such a way that one needs to climb stairs from time to time. This handicaps pupils with physical disabilities. Also if all jobs required reading fine print, all persons with visual impairments would be disadvantaged (Kalabula 1991).

2.2.4 Special Education

Special education involves provision that is in some way additional to the education that is provided for the majority of pupils. Pupils with disabilities who have special educational needs require additional resources to meet those needs. Therefore, instruction given is individually planned, systematically implemented, and carefully evaluated to help learners who need extra support in learning.

Kalabula (1991a) states that as used in the United Kingdom (U.K.), special education is the education designed to meet the special needs of pupils with marked disabilities of body or/and mind. This is stipulated under the 1944 Education Act where pupils from the age of two are classified as blind, partially sighted, deaf, partially hearing, delicate (including diabetics, asthmatics, heart cases etc), educationally sub-normal, epileptics, the maladjusted, physically disabled, or speech-defective. Having been colonized by the British, generally educational policies in Zambia tend to be largely influenced by this historical outlook. Hence, some of the labels are commonly used to classify different categories of disability. It should however, be mentioned that this classification was abolished in the U.K. in 1981 and was replaced with what was considered to

be a more desirable concept: pupils with special educational needs (CSEN). A similar classification system of special educational needs as in the U.K. is used in the United States of America (USA) except that in the USA, the intellectually gifted are also included under the heading of 'exceptional pupils'.

2.2.5 Special Educational Needs (SEN)

The concept of special educational needs is not an easy one to define as noted by various experts in the field of special education. This is because generally agreed definitions are difficult to achieve and consequently rare. One acceptable approach is to regard special educational needs as only those which require more than the mainstream skills of the classroom teacher for their solutions. In other words, needs which call for intervention in support of the teacher or the creation of an alternative learning situation for the pupil (Brennan 1985). This position is in line with the Warnock Report by the Department of Education and Science (1978) and relevant to the Zambian context where a special educational need is defined as requiring:

- (i) the provision of special means of access to the curriculum through special equipment, facilities or resources, modification of the physical environment or specialist teaching techniques'
- (ii) the provision of special modified curriculum
- (iii) payment of particular attention to the social structure and emotional climate in which education takes place.

The Warnock Report's (1979) definition is fairly advanced because it focuses on facilities that are required to meet the child's needs. From an educational perspective, it is appropriate because it centres on curriculum, allowing for those pupils who may follow the normal curriculum given the necessary support. It also includes those for whom the normal curriculum may be undesirable and articulates the point that for curriculum to be effective, it must be implemented in

a situation appropriate to the child's learning needs. However, in recent years, the concept of special educational needs is defined on the basis of human rights and international experiences. There has been a shift from the narrow scope of 'the special education of pupils with disabilities' to 'the education of all pupils with diverse needs' (Mwingsha 2000: 88)

2.2.6 Pupils with Special Educational Needs

The concept of pupils with special educational needs is based on the belief that all pupils have needs that can be addressed with certain common sets of services. It is based on the idea that every child should receive some form of education with the contents adapted to the needs of the child and the time limits set for what the child can manage. Hence, the concept refers to pupils who need additional arrangements while maintaining the need for and their right to benefit from the normal mainstream services planned for all other pupils (Desta, 2000)

2.2.7 Integration

Special education for pupils with special needs is relatively recent development in Zambia, as elsewhere. Much of this development has centered in special schools separate from the mainstream. Indeed special education has tended for many years to be seen also most by definition as the preserve of special schools. For a number of years then segregation prevailed. There were in fact two separate systems, running in parallel and commonly on different levels. Special schools catered for pupils with disabilities, while mainstream school provided for the non-disabled.

It became clear that the pupils' needs were not being met as well as they might be under the prevailing arrangements. Special education went through a period of upheaval and self-examination. One of the major features of this was a reaction against segregation and a corresponding movement towards integration.

Integration as used in special education, refers to the education of pupils with special needs in mainstream schools. Integration provides a natural environment where those pupils are alongside their peers and are freed from the isolation that is characterized by much special school placement. As one might expect from the diversity of forces in operation, the concept is a complex and dynamic one. It has evolved from a simple opposition to placement in a special school to encompassing a variety of arrangements in mainstream schools. This diversity is commonly described in two ways, first in terms of the nature of the association between the special groups and the mainstream schools and secondly in terms of organizational structure.

Warnock distinguishes three main forms of integration in terms of association, locational, social and functional, locational integration exists where special units or classes are set upon in mainstream schools or where a special school and mainstream school share the same site. Social integration is where pupils attending a special unit or class eat, play and consult with other pupils and possibly share organized out-of-classroom activities with them. Functional integration is the fullest form of integration and is achieved when locational and social integration leads to joint participation in educational activities where pupils 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 schools.

A second way of elaborating the concept of integration is to describe the different organizational arrangements it encompasses. One of the most popular arrangements follows Deno's (1970) cascade model. The organizational arrangement are described in terms of a continuum between placement in an mainstream class without support and in a residential special school. These vary slightly but the essential pattern is something as follows:

- i. Mainstream class with support in classroom

- ii. Mainstream class with withdrawal
- iii. Special class part-time, mainstream class part-time
- iv. Special class in mainstream school fulltime
- v. Special school with contact with mainstream school.

2.2.8 The Special Unit or Class

One organizational arrangement for integrating pupils with special needs is the special unit or class in a mainstream school fulltime. The place of the special unit in special education is a curious one. On the one hand, special units are criticized, along with special schools for perpetuating segregated education of pupils with disability, on the other, they are seen as a form of interaction providing more opportunity for interaction with mainstream peers than a segregated special school on a separate site. Even so, the establishment of units for pupils with disabilities in regular schools has been criticized as paying lip service to integration by allowing the enrolment of pupils with disabilities in mainstream schools while ensuring minimum disruption to regular classes. Whichever view is taken of the special unit depends in structural and organizational arrangements within a schools and the extent to which the mainstream school is prepared to adapt to meet the diverse educational, physical and social needs of pupils with disabilities.

Traditionally, the special unit has been viewed as an alternative provision to special schools and where special units have been the predominant provision, fewer segregated schools have been developed. In the absence of any evidence favouring either special schools or special units, special units have become preferred models for the education of pupils with intellectual disabilities in Zambia, developing rapidly in the years after government took over the running of special education in 1971.

Many of the advantages of special units are similar to those described for special schools. Special units are usually small, upgraded, with high teacher-pupil ratios and staffed by teachers with appropriate qualifications and expertise. Classes can be highly structured and teaching geared to individual needs. Concentration of specialist teaching, programmes, equipment enhances competence (Guralnick, 1981). A child's social behaviour and personal-social effectiveness is largely governed by the experience of social interactions with peers (Baumrind, 1972; Charlesworth & Hartup, 1967) and the foundations of all adult relationships may originate in childhood (Duck, 1983). The concept of interventions in interaction is therefore important.

Interventions can take many forms. One play has been to use peers as helpers to assist in the development of social skills and particularly play skills. Guralnick, (1978) emphasized that play behaviour is a key ingredient in adaptability learning, cognition education and social behaviours. The involvement of peers is increasingly in evidence in the United States and Canada. Various advantages are identified. These include:

- The potential existing in peer interaction is utilized for constructive educational ends
- The tutoring situation is beneficial to both partners
- It provides invaluable assistance for the teacher

As used in the present study, a peer tutoring programme was used as a specific intervention to promote interaction.

2.2.9 Segregation

Segregation is the exact opposite of integration entailing, by law or custom, separate (and inferior or superior) facilities for social or (in the most usual sense) racial and ethnic groups, and providing separate educational, recreational, and other facilities for different racial groups, or different pupils in case of education e.g. that of hypothetical normal and pupils with disabilities.

Segregation inevitably results in discrimination in favour of one group over the other or others. The word has been extended to cover a whole range of discriminatory practices, including the denial of employment and voting rights and prohibition against intermarriage (Kalabula 1991).

2.2.10 Inclusive Education/Schooling

In the existing literature the concept of inclusive education and inclusive schooling are used interchangeably. However, in this report inclusive education is a theme.

Advocates of Inclusive Education (e.g. Stainback & Stainback, 1996) define it as a philosophy based on democracy, equality, and human rights. Hence, inclusive classrooms, starts with a philosophy that all pupils can learn and belong in the mainstream of school and community life. Diversity is valued; it is believed that diversity strengthens the class and offers all of its member's greater opportunity for learning. The key point is that diversity should be valued. An inclusive school is one that educates all pupils in the mainstream. Educating all pupils in the mainstream means that every pupil is in the nearest local mainstream schools and mainstream classes. It also means that all pupils are provided with appropriate educational opportunities within the mainstream

An inclusive school goes beyond – it is a place where everyone belongs, is accepted, supports and is supported by his or her peers and other members of the school community in the course of having his or her educational needs met. It is argued that exclusion in schools sows the seeds of social discontent and discrimination.

2.2.10 Social Interaction

Social interaction is a dynamic, changing sequence of social actions between individuals (or groups) who modify their actions and reactions according to the

actions by their interaction partner(s). In other words they are events in which people attach meaning to a situation, interpret what others are meaning and respond accordingly. Social interaction can be differentiated into:

- accidental (also known as social contact) – not planned and likely not repeated. For example, asking a stranger for directions or shopkeeper for product availability.
- Repeated – not planned, bound to happen from time to time. For example, accidentally meeting a neighbour from time to time when walking on your street.
- Regular – not planned, but very common, likely to raise questions when missed. Meeting a security guard every workday in your work place, or dining every day in the same restaurant.
- Regulated – planned or regulated by customs or law, will definitely raise questions when missed. Interaction in a work place, family, etc.

In sociological hierarchy, social interaction is more advanced than behaviour, action, social behaviour, social action and social contact, and is in turn followed by more advanced concept of social relation. In other words, social interactions, which consist of social actions, form the basis of social relations.

The primary goal of integration is to facilitate contact between pupils with special needs and their peers. For these benefits to be realised however, it is necessary that interactions take place. For the purposes of this study, social interaction refers to the contact between pupils with special needs and their mainstream peers.

2.2.12 Peer and Cross-Age Tutoring

One of the advantages most commonly claimed for integration is that it provides an opportunity for pupils with special needs to relate to their mainstream peers, possibly developing friendships with them, and benefit from being surrounded by normal patterns of behaviour. Intervening in interaction therefore refers to positive steps that need to be taken to improve interaction. This interaction can

take many forms. One ploy has been to use peers as helpers to assist in the development of social skills and of pupils with special needs.

It is likely that peer and cross-age tutoring have been part of human existence since hunter-gatherer times. As Jenkins and Jenkins (1987) write, "Tutorial instruction (parents teaching their offspring how to make a fire and to hunt and adolescents instructing younger siblings about edible berries and roots) was probably the first pedagogy among primitive societies" (p. 64). Wagner, on the other hand, traces the historical origins of peer tutoring in Western civilization back to Greece in the first century A.D. and through Rome, Germany, other European locales, and finally America in 1990. Topping's (1988:12-18) history dates the formalized use of peer tutoring back to the 1700s. Other academics (Bland and Harris, 1989:142) trace peer tutoring back to the early nineteenth century when monitors were introduced as a system.

Probably the most succinct definition of peer tutoring comes from Damon and Phelps (1989a: 11) "Peer tutoring is an approach in which one child instructs another child in material on which the first is an expert and the second is a novice." However, multiple definitions of peer tutoring exist, and they are not all consistent.

Finally, some researchers (Damon and Phelps, 1989b: 137) imply that there is no such thing as a true "peer" tutor. They contend that peer tutoring is often called "cross-age" tutoring, because the tutor is usually two or more years older than the tutee. In the strict sense, the phrase "peer tutoring" is something of an oxymoron. As if the overlap between peer and cross-age tutoring was not confusing enough, peer and cross-age tutoring also go by the names of "peer teaching," "peer education," "partner learning," "peer learning," "child-teach-child," and "learning through teaching" (Britz, Dixon, and McLaughlin, 1989:17); and there has been at least one instance in which cooperative learning has been referred to as peer-tutoring (Wagner, 1982:225). Furthermore, peer tutoring is a

type of "peer resource programming," and shares attributes with youth service, youth involvement, peer helping (or counselling), peer mediation, peer leadership, and cooperative learning. Peer tutoring has also been called one approach to "peer cooperation," along with cooperative learning and peer collaboration. "Peer collaboration" differs from peer tutoring in that pupils begin at roughly the same levels of competence when they collaborate to "solve tasks that neither could do previously" (Damon and Phelps, 1989b: 142). Finally, "Mutual Instruction" or MI has been proposed as a more descriptive term than peer and cross-age tutoring and counselling (Swengel, 1991:704).

There are three commonly cited benefits of peer and cross-age tutoring: the learning of academic skills, the development of social behaviours and classroom discipline, and the enhancement of peer relations (Greenwood, Carta, and Hall 1988:264). Researchers have also identified improvements in self-esteem and one of its components--internal locus of control. It is important to note that all such benefits accrue to both tutor and tutee.

Some writers also cite broader benefits. Hedin (1987:44), for example, cites "a more cooperative, pleasant classroom atmosphere" and "[recruiting] promising future teachers into the profession" Still others cite better-adjusted pupils with skills transferable to parenting when they mature (Strayhorn, Strain, and Walker 1993). The focus of this study is on direct benefits for tutors and tutees, but it also touches briefly on some indirect effects of interest to parents, teachers, and administrators.

2.2.13 Play

Play makes an important contribution to personal and social development over a person's entire life span. Play may be defined as voluntary activities that are not performed for any sake beyond themselves. They are activities that people commonly view as being outside the serious business of life.

There are many forms of play. In a classic study, Parten (1932) observed the play of children and identified six types of play based on the nature and extent of the children's involvement:

- 2.2.13.1 Unoccupied play: Pupils spend their time watching others, idly glancing about, or engaging in aimless activities (standing around, getting on and off a chair, tugging on their clothing, and so on).
- 2.2.13.2 Solitary play: Pupils play with toys or objects by themselves and make no effort to get close to or speak with other pupils.
- 2.2.13.3 Onlooker play: Pupils watch other pupils at play, occasionally talking to them or asking them questions. However, they do not themselves join the play.
- 2.2.13.4 Parallel play: pupils play independently beside other pupils but not with them. Although they play close together and with similar toys or objects, they do not interact.
- 2.2.13.5 Associative play: Pupils interact with one another, borrowing or lending play material, following one another with carts, cars, or trains, and attempting to influence each other's behaviour. Each child does as he or she sees fit; no division of labour or integration of activity takes place.
- 2.2.13.6 Cooperative play: Pupils integrate their play activities. In this kind of play, the members usually take on different role responsibilities, and they often think of themselves as belonging to a group from which other pupils are excluded.

2.2.14 Social skills

Many experts (Schumaker & Hazel, 1984; Lerner, 1990) define a social skill as any cognitive function or observable behaviour in which an individual engages while interacting with another person or persons. Cognitive functions include such capacities as (a) empathizing with or understanding another person's feelings, (b) discriminating and making inferences about social cues, and (c) predicting and evaluating consequences for social behaviour. Observable behaviours include nonverbal and verbal components of social performance. Social competence involves a person's social skills, which lead to positive consequences for herself/himself and the person with whom s/he is interacting.

Social competence is seen as a composite of social skills such as discriminating situations in which social behaviour is appropriate, determining which verbal and nonverbal skills are appropriate for a given situation, performing those skills fluently and in appropriate combinations, accurately perceiving the other person's verbal and nonverbal cues, and adjusting to this feedback. In behavioural terms, social skill is defined as the ability to exhibit behaviours that are either positively or negatively reinforced and to avoid exhibiting behaviours that are extinguished or punished by others. Very simply, a social skill may be defined as a behavioural competence in social situations (Center, 1989).

The inadequacy of necessary social skills, inappropriate behavioural excesses, and interpersonal relationship problems demonstrated by pupils with mild disabilities has been well documented (Saborne & Beard, 1990). Since a deficit in the social skills implies a lack of sensitivity to people and a poor perception of social situations, the deficit affects almost every aspect of a pupil's life and is probably one of the most crippling disabilities the pupil can have. In terms of total life functioning, the social problem may be far more disabling than academic deficits (Lerner, 1990). Not only do social skills interfere with successful adjustments to the peer group and educational mainstream (Nelson, 1988), they also are predictive of long-term maladaptive behaviour patterns including

delinquency, dropping out of school, and adult mental health problems (Saborne & Beard, 1990)

2.3 Conclusion

This chapter exemplified some of the core concepts relating to the social interaction of pupils in integrated basic schools. The next chapter presents the structure of the Zambian society as well as the country's level of development and education system. It also presents the current education practice in general and the current special education practice. To set the study in a broader context, reference is made to practice elsewhere in the world.

CHAPTER THREE

EDUCATION OF PUPILS WITH SPECIAL EDUCATIONAL NEEDS IN ZAMBIA AND AT GLOBAL LEVEL

3.0 General

The chapter presented the theoretical framework for the study and to exemplify some of the core concepts relating to the social interaction of pupils in integrated basic schools. In this chapter, I attempt to summarize the current general education practice in general and the practice for pupils with special educational needs in Zambia is made. To set it in a broader context, I make reference to practices elsewhere, particularly in the United Kingdom and the United States of America because of the historical connections there has been in this kind of educational provision and the commonality of the English language across these countries. To begin with, some understanding is needed for the structure of the Zambian society and the country's present state of development and education system.

3.1 Background on Zambia

3.1.1 Geographical context:

The Republic of Zambia is a landlocked southern African country, lying between 8 and 18 degrees latitude south and 22 and 34 degrees longitude east. Democratic Republic of Congo (formerly Zaire) and Tanzania border it to the north, Malawi and Mozambique to the east, Zimbabwe and Botswana to the south, Namibia to the south-west, and Angola to the west. Zambia covers an area of 752,612 square kilometres and is situated on the great plateau of Central Africa, with altitudes ranging from 1,000 to 1,3000 meters. Zambia's climate and vegetation are tropical. There are three distinct seasons; the cool and dry winter season (May to August), the hot and dry season (September to October), and the warm and wet season (November to April). Vegetation is a mixture of trees, tall grass, and other woodlands, mainly of the deciduous type. Annual precipitation ranges from 600mm to 1,400mm.

3.1.2 Political and Administrative Context:

In 1991, Zambia reverted to multi-party democracy after almost 20 years of 'one party participatory democracy' under the United National Independence Party (UNIP), which had led the country to independence in 1964. UNIP's first few years in power, during the first Republic that ran from independence in 1964 until 1972, were also characterized by multi-party democracy. The 1991 shift followed the rise of the Movement for Multi-party Democracy (MMD). Elections were called for by both populace and the international community. MMD won, took over the reigns of the government, and has remained in power since then.

Administratively, the country is divided into nine provinces: Central, Copper belt, North-western, Southern, Northern, Luapula, Western, Lusaka and Eastern. These are further divided into 72 districts. Each province is headed by a Deputy Minister appointed by the president, while each district has a popularly elected council and is headed by a District Commissioner. City and Municipal councils are headed by Mayors while district councils are headed by Chairpersons.

3.1.3 Cultural Context

Zambia is culturally heterogeneous. While its approximately 72 ethnic groups share many similarities there are also considerable diversities in beliefs and practices. Seven of the many languages of the ethnic groups are spoken by 68 percent of the population and have official status. These are Tonga, Lozi, Bemba, Luvale, Kaonde, and Lunda. English is the official language and medium of instruction in education.

An extended family system is prevalent, especially in the rural areas. Families tend to be more nuclear in urban areas; those that have lived in urban areas for some generations frequently retain weak links with their wider extended families in the rural areas. Both matrilineal and patrilineal systems exist in the various ethnic groups. However, within both lineage systems men dominate household

and community decision-making as well as controlling most family assets. Rural communities are typically organized into villages, often led by a village headman. Traditional authority is vested in chieftaincies covering a group of villages of a common ethnic group. Zambia's population is predominantly Christian.

3.1.4 Demographic context

The demographic situation of Zambia is characterized by high growth rates, high and relatively stable fertility rates, increasing mortality rates, declining life expectancy, extreme youthfulness, substantial rural to urban migration, a high level of urbanization, low population densities and an uneven spatial distribution of the population.

The country's population increased from 3.5 million in 1963, to 5.7 million in 1980, 7.8 million, and to an estimated 9.4 million in 1995, an increase of 268 per cent over 32 years. Zambia's population growth rate has remained virtually unchanged for over 30 years. It was 2.6 per cent per annum in the 1963-1969 period and 3.1 per cent per annum in the 1969-1980 inter-censal period (United Nations Development Programme, 2000).

3.2 Brief Outline of the Zambian Education System

3.2.1 Educational management

Mainly two ministries manage the educational sector: the Ministry of Education (MoE) and the Ministry of Science, Technology and Vocational Training. The MoE is responsible for providing primary and secondary education, teacher training and continuing education. The Department of Technical Education and Vocational Training (DTEVT) under the MSTVT offers training at technologist, technician and craft levels in technically oriented programmes.

There are also two other Ministries that have smaller-scale involvement in the provision of education. These are the Ministry of Sport, Youth and Child Development and the Ministry of Community Development and Social Services.

Decentralization of the educational system has been a major priority, involving not only decentralization of specified powers and programmes to Boards of Education, but also restructuring of the MoE itself to ensure greater efficiency and accountability. Within the decentralized system, the Ministry headquarters will retain the responsibility for key national functions of drafting legislation, formulating policies, planning at national level, mobilization and allocation of resources, development of a national curriculum, setting of national standards, and supervision, monitoring and evaluation.

Each of the nine provinces is headed by a Provincial Education Officer who implements MoE policies and monitors educational activities in the province as well as supervising the District Education Board secretariats who manage educational activities in each district in the province.

At school level, the school Manager (or head teacher as he/she was called before) is in charge of managing the school and serving as a link between the school and the Ministry through the District Education Board Secretary at district level. The School Manager is also the link between the school and the community through the Parent -Teacher Association (PTA).

3.2.2 Education Policy

At present Zambia is facing two major challenges in education: access to education for all and quality education that is relevant to the needs of learners and society. In order for the Ministry of Education to overcome these challenges, it was necessary to solicit active participation from the broadest spectrum of stakeholders. These included other government agencies and ministries, a wide representation from civil society, and international development agencies.

The current policy on education in Zambia is defined in the document of 1996 termed 'Educating Our Future'. The Policy document recognizes the basic right of every Zambian to good quality education and outlines the entire field of formal

institutional education in the country. The policy is also guided by holistic approach to education, which recognizes the inter-linkages and interdependencies between the various stages, beginning with early childhood education, running through formal levels, and extending to adult basic education as well as lifelong education. Other key documents that inform policy include the Zambian Government's Poverty Reduction Strategy Paper (2001) and the Report on the Restructuring of the Ministry of Education (2000).

In 2002, the government declared that education would be free for all pupils from grades 1-7. This decision was made in the context of an unprecedented decline in enrolment rates, as well as high dropout rates. In addition, the policy sought to address the increasing numbers of vulnerable pupils excluded from the educational system, particularly orphans due to the HIV/AIDS pandemic. Under this policy, it was envisaged that no pupils in grades 1-7 would be levied any user fees, including the Parent –Teacher Association (PTA) fees. School uniforms also would cease to be compulsory and it would be the responsibility of schools to provide the basic requisites for pupils.

The policy of the Government of Zambia was in line with the overall goals of the international community in education. The Ministry was committed to Education for All (EFA) as promulgated by the world community at Jomtien in 1990 and reaffirmed at Dakar in 2000. Education was to be viewed as a whole, and in the light of the activities of the various public and private sectors that deal with education and was to ensure that sufficient attention was paid to the needs of all levels, from early childhood to adult literacy and life –long education.

For this reason, and because every adult, youth and child had a right to basic education, the Ministry of Education was committed to taking action to meet the basic literacy and numerous needs of adults, particularly women.

3.2.3 The Education System

The Ministry of Education is the largest government unit, employing in the region of 46, 000 teachers and lecturers and slightly over 4,400 administrative and other support staff. The total number of Educational Institutions directly under the Ministry of Education is 4,800 comprising 4,528 Basic Schools, 256 High Schools, 14 Teacher Training Colleges and two (2) Universities. As well as directly providing schools, the Ministry is also responsible for giving wider guidance on the provision of education and inspecting standards of community schools and private institutions.

Under the newly restructured Ministry there are five directorates, namely Planning and Information, Standards and Curriculum Development, Distance education, teacher and Specialized Education Services and human resources and administration. The directorates are responsible for policy formulation, planning and co-ordination of activities across the Ministry. Field operations come under the Provincial Education Officers and their District Education Board Secretaries.

In accordance with the present policy, the education system is in the course of adopting the following structure: Basic schools offering grades 1 – 9, High Schools from grades 10 – 12, and tertiary education for learners who have completed grade twelve. Tertiary education includes teacher training institutions and universities. The basic education sector is oriented towards the final goal of Universal Basic Education (UBE), and has three levels: Lower basic for grades 1 – 4; middle basic for grades 5 – 7; and Upper basic for grades 8 – 9. Although the transition from the previous system of primary schools (grades 1 – 7) and secondary (grades 8 – 12) has begun, it is not yet completed. At present, both systems continue to run in parallel. Zambia's education system is pyramidal in nature with pupils entering basic school at the statutory school age of 7. Early childhood education is not provided to many children. At present, only a small minority of children profit from early childhood education. This is because pre-

schools are relatively few and far between. The majority of the pre-schools are urban-based, privately owned though local councils run some pre-schools as well. Pre-school owners meet their costs through fees, which few Zambian households can afford. The structure is illustrated in the table below:

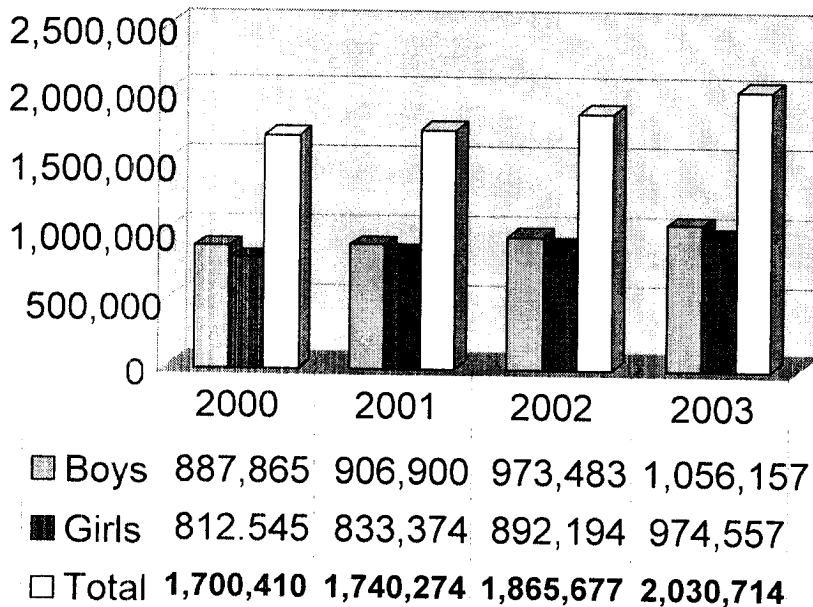
Table 3 :Structure of education system in Zambia

Age	Ed. Yr	Type of schooling				Others
30	24			University Education: (Doctorate, Masters and Bachelors Degrees)		C O N T I N U I N G E D U C A T I O N & L I T E R A C Y
29	23					
28	22					
27	21					
26	20					
25	19					
24	18					
23	17					
22	16					
21	15					
20	14			Various Training Programmes		
19	13					
18	12			HIGH SCHOOL (Grade 10-12)	Various vocational training programmes	
17	11					
16	10					
15	9	B A S I C		UPPER BASIC (Grade 8-9)		
14	8				MIDDLE BASIC (Grade 5-7)	
13	7					LOWER BASIC (Grade 1-4)
12	6					
11	5					
10	4					
9	3					
8	2					
7	1					
6	PRE-SCHOOL EDUCATION					
5						
4						
3						

3.2.4 Basic School Enrolment Trends

Figure 1: Enrolments in Grades 1- 9

2000-2003 Grade 1-9 Enrolment



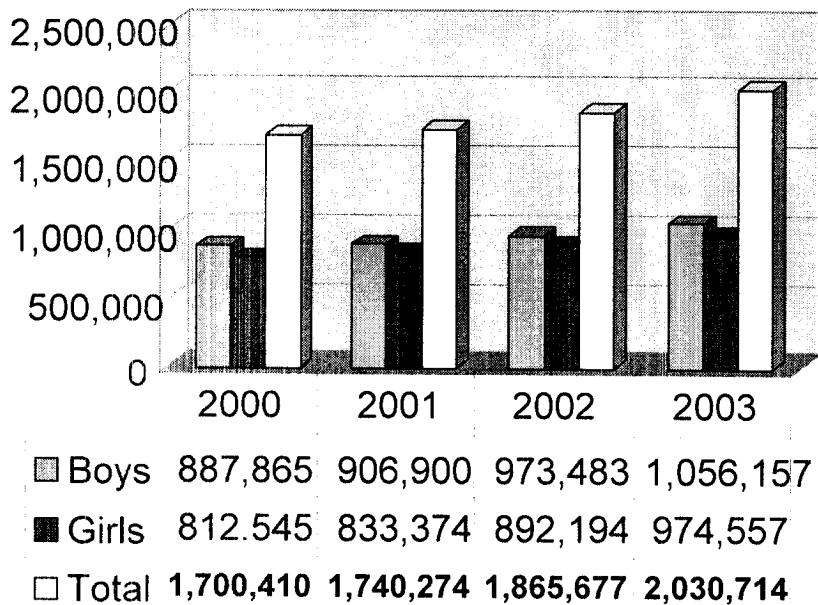
(Source: Ministry of Education, 2003)

By 2003 there were still too many pupils chasing too few school places. The picture has not dramatically changed. About 23% of school going age pupils are yet to be absorbed. In 2003 the number of regular basic schools in Zambia was 4,662 of which 4,290 were government, 64 were church, 29 were grant-aided, 220 were private and 59 community schools. Over 85% of the schools were located in rural areas. A huge increase in community schools and the establishment of Interactive Radio Initiative Centres (IRIC), which were respectively 1,793 and 496 in 53 districts in 2003 had contributed to an increase in available school places.

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3.2.5 Out of School Children Aged 7 – 13 years

Table 4: Out-of-School Children Aged 7 - 13 by Province in 2003

	Male	%	Female	%	Total	% of Pop
Central	15,133	50.9%	14,617	49.1%	29,750	11.0%
Copperbelt	11,786	45.9%	13,896	54.1%	25,682	6.2%
Eastern	45,109	52.5%	40,887	47.5%	85,996	25.9%
Luapula	11,273	43.3%	14,737	56.7%	26,010	13.2%
Lusaka	29,790	49.8%	30,064	50.2%	59,854	17.6%
N- Western	8,617	44.6%	10,723	55.4%	19,340	13.1%
Northern	14,244	38.7%	22,574	61.3%	36,818	11.1%
Southern	12,454	47.1%	13,973	52.9%	26,427	8.1%
Western	13,693	46.2%	15,927	53.8%	29,620	15.0%
Total	162,099	47.7%	177,398	52.3%	339,497	16.6%

(Source: Ministry of Education, 2003)

In 2000 it was estimated by the Ministry of Education that over 570,000 children between the ages of 7 – 13 were not enrolled in regular schools. This represented 30% of the school age population. By 2003 the number had reduced to just under 480,000 or 23.4% of the population in the regular schools. If the pupils from Community Schools are included, the picture is even better with 340,000 children not attending school, which represents 16.6% of all children.

The figures presented in 3.2.4 and 3.2.5 above are important to this study because they help in highlighting the challenges that children with special educational needs face in order to access education and to remain in the education system. Pupils with special educational needs in general and pupils with intellectual disabilities in particular, compete for the same school places.

3.2.6 High School Enrolment Trends

Admission to high school is based on performance in terminal examinations in the Junior Secondary School Leaving Examinations (JSSLE) at the end of Grade 9. This is a public examination set and marked by the Examinations Council of Zambia. Selection into Grade 10 is based on a cut-off point criteria system set each year depending on the number of available grade 10 places for that year. The cut-off point system is also used to regulate gender parity progression to Grade 10. It must be noted too that pupils with special educational needs in general and those with intellectual disabilities in particular must meet the demands of the cut-off system in order to access high education.

Table 5: Enrolment in All Schools in Grades 10-12 by Province

PROVINCE	MALE	FEMALE	% (F)	TOTAL	%OF TOTAL	% Ch.
Central	7,993	6,308	44.1	14,301	9.0	12.6
Copper belt	23,857	22,244	48.3	46,101	29.1	9.9
Eastern	8,107	5,280	39.4	13,387	8.5	5.4
Luapula	5,227	3,774	40.1	8,729	5.5	23.9
Lusaka	12,790	11,824	48.0	24,614	15.6	9.3
N-Western	5,543	3,774	40.5	9,317	5.9	15.6
Northern	9,423	5,805	38.1	15,228	9.6	9.7
Southern	9,767	7,408	43.1	17,175	10.9	5.4
Western	5,469	3,917	41.7	9,386	5.9	5.9
National	88,176	70,062	44.3	158,238	100.0	9.9

(Source: Ministry of Education, Planning unit, 2003)

3.3 Brief Overview of the History and Development of Special Education in Zambia.

3.3.1 The Period up to 1971

The colonial period can be divided into three eras: that of the British South African Company from 1890-1924, the British Colonial Office administration from 1924-52 Company from 1890-1924, the British Colonial Office administration from 1924-52 and the Federation of Rhodesia and Nyasaland from 1953-63 (Chisholm et al. 1998). During the first period, education for both pupils with and

without special educational needs was the responsibility of missionaries. Colonial rule saw the introduction of more formal and professional control over education.

The education system inherited by Zambia at independence was accordingly underdeveloped. At the time of independence, there were only 107 Zambian university graduates, of whom four were female (Kelly 1991). The immediate post-independence goal therefore, became the provision of trained human resources. The First National Plan (1966-79) aimed at providing sufficient places to ensure that all pupils received at least four years of primary education. Primary education expanded dramatically during this period. However, more emphasis was given to the expansion of secondary and technical education, with intake of secondary schools increasing by 27 per cent per annum, on average, between 1964 and 1969 (Kelly 1991).

Special needs education was worse off than mainstream education. It was a situation of doing without except for the little that was provided by exclusively Voluntary Missionary Agencies, which mainly focused on the visually and hearing impaired (Kalabula 1989; Katwishi 1995). The African Reformed Church (formerly the Dutch Reformed Church) opened the first school for the visually impaired in 1929 at Magwero in Chipata (Eastern Province) as well as a school for the hearing impaired. About the same time, another school for the hearing impaired was established at Mambilima (Johnson Falls) where currently there is a residential special school for pupils with physical disabilities. In the mid 1950s, other schools for pupils with disabilities were established.

By 1971, the following schools were in existence: the blind with 7 primary schools, six secondary school units and one unit of Home Economics in a secondary school; the deaf- 1 primary school and 4 units in primary schools; the physically disabled – 1 primary school and 2 leprosaria; the pupils in the unit-units in primary schools and 5 hospital teaching services units (Kalabula, 1991).

3.3.2 The Period from 1971 to date

3.3.2.1 The 1977 Education Reform Policy on Special Education

It was not until 1971 that special education became the responsibility of the Ministry of Education in Zambia. The first major educational policy pronouncement pertaining to special education in Zambia are contained in the Educational Reform document (GRZ 1977:23). This policy emphasized education as an instrument for personal and national development. In relation to Special Needs Education, the document states the following:

“All special unit pupils like any other pupils, are entitled to education. They should receive basic and further education by full time study as any other pupils. Further, since the special unit pupils are a special case, there should even be ‘positive discrimination’ in their favour in the provision of facilities and amenities for educational purposes.”

While the 1977 policy had positive intentions in favour of pupils with special educational needs, it somehow reflected the medical model because its concern was more with the ‘difference principle’ between the disabled and the so called any other pupils. There was no mention as to whether their right to a full time education should be provided in the mainstream schools. In other words, it was implied in the policy that the pupils with disabilities were to be treated differently because they were a special group.

3.3.2.2 The 1992 Focus on Education Policy on Special Education

The second major educational document was *Focus on Education* (1992). It emanated from the World Declaration on Educational for All that ensued from the World Conference on Education For All held in Jomtein, Thailand. The Conference stressed the importance of access to educational opportunities:

'every person-child, youth and adult shall be able to benefit from educational opportunities designed to meet their basic learning needs' (Art 1)

The 1992 policy therefore stressed the mobilization of resources for the development of school Education For All including pupils with special educational needs.

3.3.2.3 The 1996 Educating Our Future Policy on Special Education

The third major educational policy document as already referred to above: *Educating Our Future* (1996) was a product of lengthy and broadly based consultation process involving other line ministries, international donors, NGOs and the universities. This policy document addresses the entire field of formal institutional education, paying particular attention to democratisation, decentralization and productivity on the other hand, and curriculum relevance and diversification, efficient and cost-effective management, capacity building, cost sharing and revitalized partnerships to the other. It also addresses flexibility, pluralism, responsiveness to needs, and the protection of quality.

The Policy states that:

- The Ministry of Education will ensure equality of educational opportunity for pupils with special educational needs.
- *The Ministry is committed to providing education of particularly good quality to pupils with special educational needs.*

- The Ministry will improve and strengthen the supervision and management of special education across the country.

To achieve the above, the policy document mapped out the following strategies:

- Working closely with the Ministry of Health, the Ministry of education will decentralize services for the identification, assessment and placement of pupils with special needs.
- To the greatest extent possible, the Ministry will integrate pupils with special needs into mainstream institutions and will provide them with necessary facilities. However, where need is established, the Ministry will participate in the provision of new special schools for the severely impaired.
- The Ministry will cooperate with private, religious, community and philanthropic organizations in meeting the special educational needs of exceptional pupils, and providing outreach services for pupils whose impairments prevent normal attendance in school.
- The Ministry will enlarge and decentralize the special educational inspectorate.
- Planning for special education provision will be built into the Ministry's mainstream strategic planning, and in support of this the information system on special education and national needs in this area will be improved (Ministry of Education, 1996:69).

3.4 The international perspective

3.4.1 Introduction

A number of factors have shaped the direction in which special education has developed to its current status globally. The ideology and concept of disability came under severe scrutiny in the early 1960s. This was partly triggered by concerns over discrimination and the denial of rights, as well as the labelling of

people, but more significantly by the understanding and acceptance of the ecological dimension to disability and learning difficulties.

The realisation that the child's learning difficulties were the result of the interaction of a multitude of factors those within the child together with a variety of environmental factors, such as poverty or lack of stimulation, and a number of factors primarily related to the school, such as poor educational provision, inappropriate teaching and misguided assessment standards led to a positive outlook. Thus it became plain that the concept of special education should be widened to include all pupils who, for various reasons are failing to benefit from school (Tedesco 1095)

3.4.2 The United Kingdom Experience

In the U.K, the debate on integration was backed by the law. To this effect, the recommendations of Section 10 of the Educational Act (1976) maintained that wherever possible and appropriate, the education of pupils with disabilities should take place in mainstream schools. In 1978, the issue of integration was again raised by the publication of the findings of the Committee of Inquiry into the Education of Handcapped Pupils and Young People (Warnock,1978). It was recognised in the report that there would still be need for special schools for certain pupils such as, severely multiply special unit pupils from unsupported backgrounds and others for whom for various reasons would not fit into the mainstream school systems. For this category of pupils, they made definite and specific recommendations about the experience and expertise of teachers in special schools and that wherever possible, integration of pupils with disabilities should be encouraged.

The 1991 Educational Act, though not fully implementing the recommendations of the 1978 Warnock Report eliminated the categorisation of pupils, Chapter 60, Par 1.1 of the 1991 Education Act states the following. "For the purpose of the Act, a child has "Special Educational Needs" (SEN) if he has a learning difficulty

which calls for special education provision to be made for him ‘ that is, he has significantly greater problem in learning, or a disability which renders him/her unable to benefit from the normal facilities generally available within the Local Educational Authority (LEA) schools for pupils of his age or will have difficulties when he is of school age”

3.4.3 The United States of America Experience

In the U.S.A. the issue of where pupils with disabilities should be educated has been inextricably intertwined with the issues of whether they should be educated and how. At the time it was believed the best educational provision was in segregated special schools. It was not until in 1960s that several studies were published questioning the benefits of special classes for pupils with mental retardation. The enactment of Public Law (PL 94-142 in 1975 which directed the states to plan for all special unit pupils, to protect the rights of the special unit pupils and their parents in relation to placement, and to provide as much of the education of each special unit child as possible in the “mainstream” of education rather than in segregated settings culminated in effort by the states and districts to implement integration (Salend 1984) Hence, since the passage of the landmark PL 94-142 the central issue in educating pupils with disabilities, has moved from establishing entitlement and access to providing quality outcomes for pupils with disabilities. Historically, the changes brought about by the law represent a great achievement in access.

3.4.4 The Scandinavian Experience

In Scandinavian countries, Sweden, Denmark, Norway and Finland tend to share a number of characteristics which distinguish them from, for instance Western European countries in terms of educational practices. These countries have a similar history of segregated provisions for pupils with disabilities as in the U. K. and U.S.A. At government level, there seems to be a high degree of consensus on the desirability of inclusion, as a way of avoiding segregation. In Finland for

example, the Education Act (628/1998. 17) stipulated that pupils with minor learning disabilities or adjustment difficulties have a right to receive education in special schools on the same comparable quality to that in mainstream schools as much as possible (Naukkarinen, 2001:128) Permanent integration of individual pupils is rare in Finland. For example, in the school year 1997-1998 only 8 per cent of all pupils were permanently integrated in mainstream schools (Happonen, 1999)

Finland like the other countries mentioned above, is committed to the philosophy of inclusive education. However, the problem is that pupils are placed from special schools to mainstream schools without looking at considerations such as number of places, teacher qualifications, teaching and learning materials and class size. The other consideration overlooked attitudes of teachers and school community (Naukkarinen 2001: 140)

From the foregoing, inclusion has come to be accepted in principle as a desirable move, but implementing the noble ideas is difficult. While legislation has been put in place pertaining to the education of pupils with special educational needs, inclusion has not been given the emphasis it deserves (Neukkarinen 2001:140)

3.4.5 Inclusion as an internationally recognised Policy

The political shifts and movements of the last quarter of the twentieth century were felt immediately as the rights campaign made its impact on public services of all kinds. Changes have been possible in thinking about inclusion in education not only because of the broader change in social climate, but also because of changes in the way that 'difficulty' is increasingly being perceived (Thomas & Loxley 2001). There seems to be less finger pointing at the child who manifests leaning difficulties at school than in the past. The international community is exploring other sources of problem solving rather than solely focusing on the 'victim'. Inclusive education has come about from a movement associated with the fight against exclusion of learners with disabilities and others categorised as

“having special needs” to one which challenges all exclusionary or separate policies and practices in education.

The basic ideas of inclusion can be found in many previous international policy documents including the convention on the Rights of the Child (1989), the Jomtien World Declaration of Education for All (1990)/ The Standard Rules on the Equalisation of Opportunities for Persons with Disabilities (1993) and the Salamanca Statement and Framework of Action adopted at the World Conference on Special Needs Education (1994).

The Convention on the Rights of the Child (1989) stipulates the Rights of all pupils. Notable among these are; the Right not be discriminated against (Article. 2); the Right to live within his/her family and the Right of disabled pupils to have special care (Article. 9) and the Right to education and training to help him/her achieve the greatest degree of self-reliance and social integration possible (Article 23). In addition, the Convention states that education shall aim at developing the child’s personality, talents and mental and physical abilities to the fullest extent. This means that education shall prepare the child for an active adult life in a free society and foster respect for the child’s parents, for his/her cultural identity, language and values and for the cultural background and values of others (Article 29,30)

Basic ideas of inclusion are also reflected in the Jomtien Declaration’s basic principles for promoting ‘Education for All’ where the following are outlined; the right of a child to a full cycle of primary education; commitment to a child-centred pedagogy where individual differences are accepted as a challenge and not as a problem; improvement of the quality of primary education as well as teacher education; recognition of the wide diversity of needs and commitment to an integrated, inter-sectarian and holistic approach (Jomtien World Declaration on Education for All and Framework for Action to Meet Basic Learning needs 1990).

The Standard Rules on the Equalization of Opportunities for Persons with Disabilities (1993) later stated that educational authorities are responsible for the education of persons with disabilities in integrated settings (i.e. in mainstream schools).

In 1994, one of the most significant international events in the field of special education occurred which built on the Jomtien Declaration and the Standard Rules principles and to map out the practical requirements that have to be satisfied to make inclusive education a reality. This was the Salamanca World Conference on Special Needs Education Access and Quality organised by the government of Spain in co-operation with UNESCO. The goal was nothing less than inclusion of all the world's pupils in schools and the reform of the school system to make this possible. Specifically, the Salamanca Framework for Action stated among other things, that 'schools should accommodate all pupils regardless of their physical intellectual, social, emotional, linguistic or other conditions. This should include disabled and gifted pupils street pupils and working pupils, pupils from remote or nomadic populations, pupils from linguistic, ethnic or cultural minorities and pupils from other disadvantaged or marginalized areas or groups. In the context of this framework, the term 'special educational needs' refers to all those pupils and youth whose needs arise from disabilities or learning difficulties. (Salamanca Framework for Action, Article 3)

All the above developments coupled with initiatives from the countries themselves as well as from various multilateral and bilateral organisations and NGOs, have culminated in the growing recognition that all pupils have the right to a common education in their locality or community regardless of their background, attainment or disability. However, while there is consensus on inclusive education being the most desirable, how to achieve full inclusion, remains a challenge.

3.5 Educational Arrangements for pupils with Intellectual Disabilities in Zambia

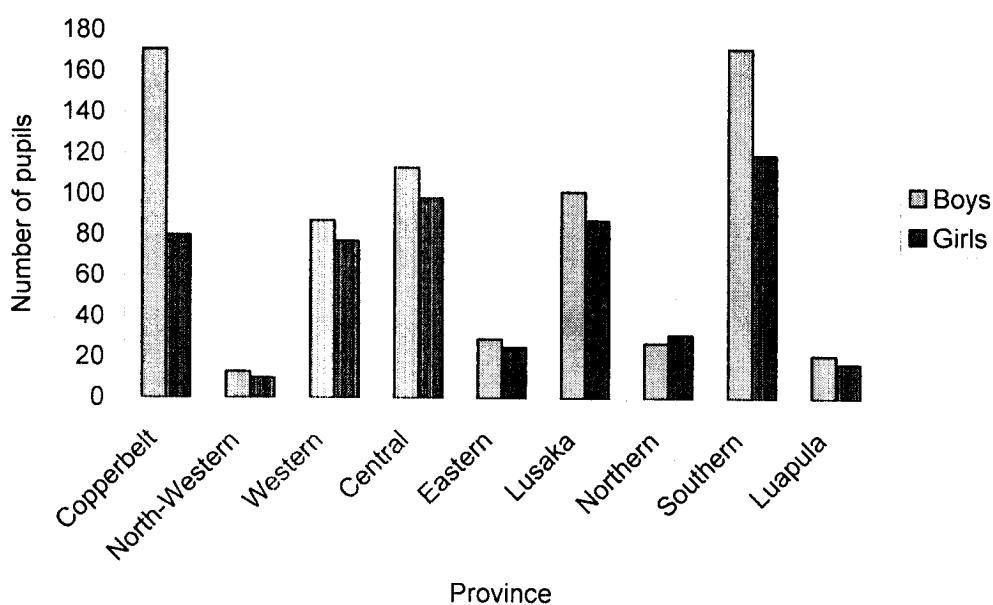
3.5.0 Introduction

In relation to pupils with special educational needs, the Ministry of Education's policy covers three main areas. Firstly, the Ministry states that it will ensure equality of educational opportunity for pupils with special educational needs. Secondly, the Ministry is committed to providing education of particularly good quality to pupils with special educational needs. Thirdly and finally, the Ministry will improve and strengthen the supervision and management of special education across the country. One of the strategies the Ministry chose to employ to implement the above policy was 'to integrate pupils with special educational needs into mainstream institutions and provide them with necessary facilities (Ministry of Education, 1996). In recent years therefore, Zambia has adopted the policy of integrating pupils with disabilities into mainstream schools. As a result of this policy, many special units for pupils with intellectual disabilities have been opened in the mainstream.

3.5.1 Pupils with intellectual disabilities in special units by province and gender.

Figure 2 below shows that the education for pupils with intellectual disabilities is least developed in Northwestern, Luapula, Eastern and Northern provinces. Wherever there are facilities for pupils with intellectual disabilities in the country, more boys are enrolled than girls.

Figure 2: Pupils with intellectual disabilities by gender and province.



The number of pupils with intellectual disabilities by district, school and gender for each of the nine provinces is shown in tables 3 – 11 below. Also shown is the number of special education teachers who handle pupils with intellectual disabilities.

Table 6: The number of pupils with intellectual disabilities by district, school and gender and number of specialist teachers in the Copper-belt Province

District	Units	Number of pupils	Number of teachers
Chingola	Chingola Basic	9 (B3 G6)	1
	Lubambe	2 (B1 G1)	1
	Chiwempala Basic	10 (B6 G4)	1
Ndola	Ndola Day Care	21 (B11 G10)	2
	Kasenshi Basic	20 (B15 G5)	2
Luanshya	Muchinshi Basic	23 (B10 G13)	3
	Mpelembe Basic	13 (B5 G8)	4
Chililabombwe	Chililabombwe Basic	10 (B6 G4)	1
Mufulira	Kalanga Basic	11 (B5 G6)	1
	Muleya Basic	14 (B8 G6)	1
Masaiti	Fibale Basic	3 (B1 G2)	1
Kitwe	Chibote High	13 (B7 G6)	1
	Valley View Basic	22 (B13 G9)	1
TOTALS 7 Districts	12 Basic school units 1 high school unit	171 (B91 G80)	20

Table 7: The number of pupils with intellectual disabilities by district, school and gender and number of specialist teachers in the North – Western Province

District	Units	Number of Pupils	Number of teachers
Solwezi	Kikombe Basic	7 (B4 G3)	2
Kabompo	Chiweza Basic	12 (B7 G5)	4
Zambezi	Chilen'ga Basic	4 (B2 G2)	1
TOTALS 3 Districts	3 Basic school units	23 (B13 G10)	7

Table 8: The number of pupils with intellectual disabilities by district, school and gender and number of specialist teachers in Western province

District	Units	Number of pupils	Number of teachers
Mongu	Kanyonyo Basic	9 (B7 G2)	1
	Limulunga Basic	13 (B6 G 7)	1
Kaoma	Mulamati Basic	9 (B 6 G 3)	1
Kalabo	Kalabo Basic	13 (B 6 G 7)	1
TOTALS 3 Districts	4 Basic school units	44 (B 25 G 19)	4

Table 9: The number of pupils with intellectual disabilities by district, school and gender and number of specialist teachers in Central Province

District	Units / school	Number of pupils	Number of teachers
Kabwe	Buseko Basic	7 (B3 G4)	2
	Neemtree Basic	15 (B9 G6)	3
	Nkwashi Basic	10 (B6 G4)	2
	Mine Basic	8 (B3 G5)	2
	Mwashi Basic	9 (B4 G5)	2
Kapiri- Mposhi	Muteteshi Basic	17 (B7 G10)	3
Mkushi	Mkushi Boma	24 (B13 G11)	1
	Chikupili Basic	10 (B6 G4)	1
Chibombo	Muchenje Basic	15 (B9 G6)	1
	Chombela Basic	10 (B6 G4)	1
	Chisamba Basic	11 (B9 G2)	1
	Moomba Basic	29 (B11 G18)	1
	Brunelli Basic	9 (B5 G4)	1
	Keembe Basic	12 (B7 G5)	1
	Kamishishi Basic	12 (B9 G3)	1
	Chamuka basic	5 (B2 G3)	1
Serenje	Miselo Kapika Demonstration	8 (B4 G4)	1
TOTALS 5 Districts	17 Basic school units	211 (B113 G98)	25

Table 10: The number of pupils with intellectual disabilities by district, school and gender and number of specialist teachers in Eastern Province

District	Units / school	Number of pupils	Number of teachers
Chipata	Mwami Basic	11 (B6 G5)	2
	Umodzi basic	6 (B3 G3)	2
	Hillside Basic	11 (B6 G5)	2
	Lutembwe Basic	3 (B1 G2)	2
	Kanjala Basic	4 (B3 G1)	1
Lundazi	Township Basic	5 (B2 G3)	1
Chadiza	Chadiza Basic	9 (B6 G3)	2
Petauke	Mizyu Basic	5 (B2 G3)	1
TOTALS 4 Districts	8 Basic school units	54 (B29 G25)	13

Table 11: The number of pupils with intellectual disabilities by district, school and gender and number of specialist teachers in Lusaka Province

District	Units / school	Number of pupils	Number of teachers
Lusaka	Arthur Wina	9 (B4 G5)	2
	Chainama	52 (B23 G32)	8
	Chibelo	5 (G 3 G2)	1
	George Central	31 (B20 G11)	2
	Kizito	6 (B4 G2)	1
	Matero East	11 (B 9 G2)	2
	North Mead	13 (B7 G6)	3
	Woodlands 'A'	16 (B7 G9)	3
Chongwe	Nyangwena	7 (B5 G2)	1
Kafue	Msamba	8 (B4 G4)	1
	Chilanga	11 (B7 G4)	1
	Kasenje	9 (B4 G5)	1
	Nangongwe	7 (B4 G3)	1
TOTALS 3 Districts	13 Basic school units	188 (B101 G87)	27

Table 12: The number of pupils with intellectual disabilities by district, school and gender and number of specialist teachers in Northern Province

District	Units / school	Number of pupils	Number of teachers
Kasama	Chifwani Basic	10 (B6 G4)	1
	Chibile Basic (Mungwi)	6 (B 2 G 4)	-
Mpika	Kabale Basic	23 (B9 G14)	2
Chinsali	Chinsali Basic	17 (B 10 G 7)	2
Mbala	Mbala Basic	2 (B - G 2)	2
TOTALS 4 Districts	5 Basic school units	58 (B27 G31)	7

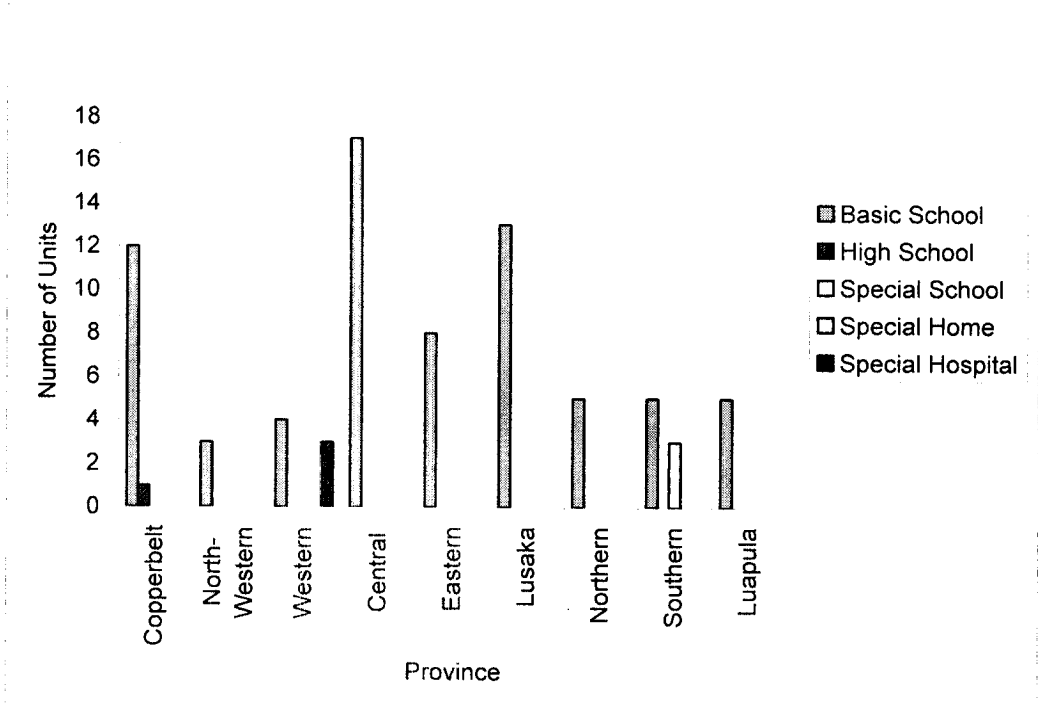
Table 13: The number of pupils with intellectual disabilities by district, school and gender and number of specialist teachers in Southern province

District	Units / school	Number of pupils	Number of teachers
Mazabuka	Nanga school	14 (B8 G6)	2
Choma	St. Mulumba School	107 (B57 G50)	9
Sinazongwe	Maamba School	65 (B45 G 20)	7
Namwala	Mangwele Basic	11 (B5 G6)	1
Itezhi - Tezhi	Ngoma Park Basic	15 (B8 G7)	1
Livingstone	Mujala Demo	17 (B9 G 8)	2
	Dambwa Basic	12 (B7 G5)	1
	David Livingstone	49 (B32 G17)	4
TOTALS 6 Districts	5 Basic school units 3 Special schools	290 (B171 G119)	27

Table 14: The number of pupils with intellectual disabilities by district, school and gender and number of specialist teachers in Luapula Province

District	Units / school	Number of pupils	Number of teachers
Kawambwa	Munkanta Basic	10 (B5 G5)	1
Mwense	Koweni Basic	4 (B0 G4)	3
Mansa	Mansa Basic	10 (B9 G1)	1
	Mantumbusa Basic	7 (B4 G3)	1
Samfya	Kasomabangeulu Basic	7 (B3 G4)	1
TOTALS 4 Districts	5 Basic school units	38 (B21 G17)	7

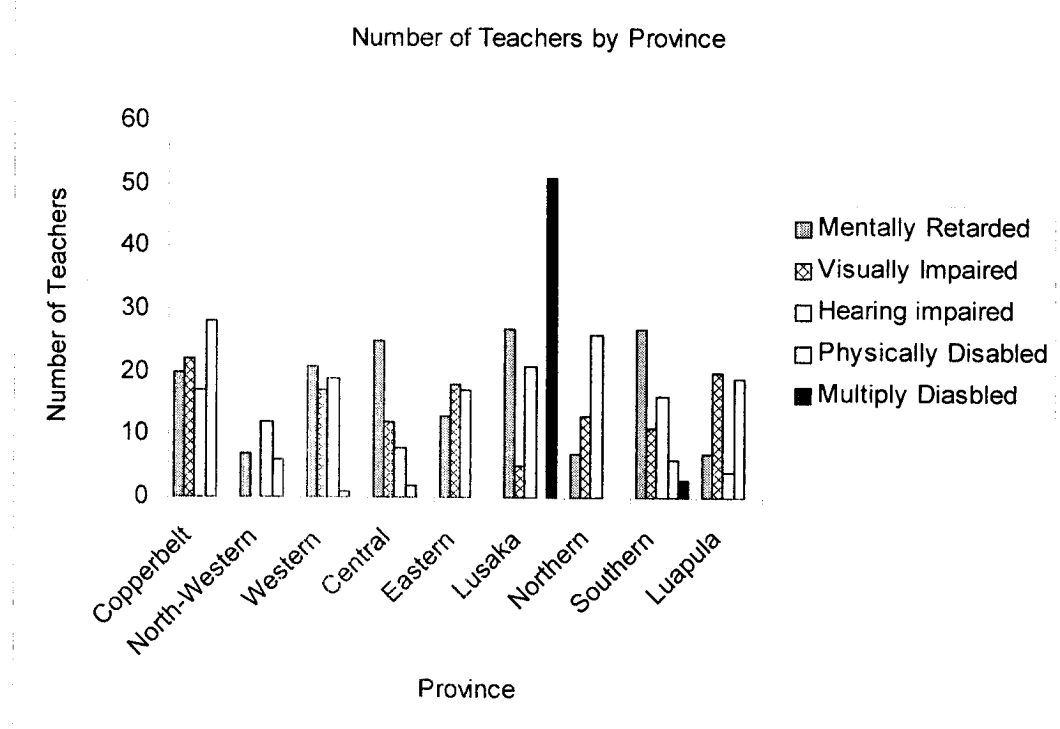
Figure 3: Type of special schools and units for pupils with intellectual disabilities by province.



3.5.2 Number of special education teachers for pupils with intellectual disabilities by province

There are 564 trained special education teachers in the country. Copper belt has 87; North-Western 25; Western 82; Central 54; Eastern 51; Lusaka 107; Northern 53; southern 55 and Luapula 50. In all provinces except Lusaka there are more male teachers than females.

Figure 4: Number of Special education teachers by province



3.6 The profiles of North- Western and Western Provinces and Schools in the Study

3.6.1 North–Western Province

North- Western province is the third largest province covering an area of 125, 826 square kilometers. It shares borders with Angola in the west, the Democratic republic of Congo in the north, and Central and Copper belt provinces in the east. Despite its size, which is the equivalent of almost 17% of Zambia’s total area, the province is sparsely populated, accounting for only about 5% of the country’s total population. The sparse population, large geographical size and long periods of conflicts just outside its boarder, have contributed to low levels of provincial development. There are seven (7) administrative districts: Solwezi, Mwinilunga, Kasempa, Mufumbwe, Kabompo, Zambezi and Chavuma. Although there are

many ethnic groups in the province, the main ones are Lunda, Luvale and Kaonde. The province has 382 schools of which 363 are basic and 19 are high (secondary) schools. The education of pupils with intellectual disabilities is provided for in three mainstream school special units.

In North-Western Province, the spread of units is as follows:

- One unit in Solwezi district at Kikombe Basic School
- One unit in Kabompo district at Chiweza Basic School
- One unit in Zambezi district at Chileng'a Basic School

Kikombe Basic School was built as a primary school in 1969. It has expanded over the years to its present Grade one Basic school status with Grades one to nine classes. Grades one and two have three streams each while grades four to nine have four each. Poor enrolment response at grades one and two is responsible for the fewer streams at the two levels. Grades one to seven classes have an average of 35 pupils per class while grades eight and nine have 45 plus. Being located at the provincial capital, there is an adequate teaching staff with more females than men. With more female teachers the staffing situation is not stable due to frequent transfers of female teachers who have to follow their spouses. The school hosts a Unit for pupils who have an intellectual disability. Currently, there are four pupils in the unit run by one teacher.

Chiweza Basic School started as Kabompo Aided school. It opened on 18th January, 1968 with an intake of 13 boys and 13 girls. It was run by the Capuchin Fathers Agency. In 1970 the Government took over the school's administration. It has expanded over the years to its present Grade One Basic school status with grades one to nine classes with a total of 1, 012 pupils (525 girls and 487 boys). All grades have three streams with girls out-numbering boys across the streams. A teaching staff of 28 (16 female and 12 male) is inadequate to handle a school of this size. The school hosts a Unit for pupils who have an intellectual disability and other disabilities / impairments. It was opened in 1987 with two pupils taught

by untrained special teachers. Currently, there are seven (7) pupils in the unit which is being run by two trained special teachers.

Chileng'a Basic school started in 1958 as a Catechism class by the Roman Catholic Missionaries of the Chiyangi Diocese. The school proper started in 1962 under the Local Education Authority in conjunction with the Catholic Church. Over the years the school has expanded and today it is running from Pre-school through Grade one to grade nine. It runs a double stream for all grades. It has 21 classes in all including two for the Unit and Pre-school. The school staff establishment stands at 13 which is six teachers short of an adequate staffing level. The school hosts a Unit for pupils who have an intellectual disability and other disabilities / impairments. It was opened in 1993 with two pupils. Currently, there are supposed to be five pupils in the unit but due to non-availability of trained special teachers the pupils have been pushed into mainstream classes without support.

3.6.2 Western Province

Western province is located in the western part of Zambia. It shares borders with Angola in the west, Namibia in the south and Southern and central provinces in the east. The province covers an area of 126,386 square kilometres. There are seven administrative districts in the province: Mongu, Kaoma, Kalabo, Lukulu, Sesheke, Senanga and Shang'ombo. There are many ethnic groups in Western province but the main language is Silozi. The province has a total of 523 schools of which 508 are Basic and 15 are High (secondary) schools. The education of pupils with intellectual disabilities is catered for in three mainstream school special units.

In Western province the Units are spread as follows:

- One unit in Mongu district at Kanyonyo Basic School. The other unit located at Limulunga Basic school was closed at the time of the study due to lack of a trained special education teacher.
- One unit in Kalabo district at Kalabo Basic School
- One unit in Kaoma district at Mulamatila Basic School

Kanyonyo Basic School started as Barotse National School in 1939. It changed its name to its present one in 1964 when the country attained political independence from the British. It has since expanded. It is a Grade one basic school with a pupil population of more than 1, 250. The ratio of girls to boys is almost 1:1. Grades one to five have five streams each. Grades six and seven have four streams each. So too have Grades eight and nine. There are 60 teachers although a few of these are on study leave at the University and the colleges. With more female teachers the staffing situation is not stable due to frequent transfers of female teachers who have to follow their spouses.

The Unit opened in 1984 to cater for pupils with intellectual disabilities. The Unit population stands at 10. The pupils are recruited in two ways. Some pupils come through the 'Child Find' that the special teacher undertakes from term to term while some are referred to the Unit from the local hospital. The Unit is run by one trained special education teacher.

Kalabo Basic School started as a Local Education Authority primary school in 1934. It has since expanded into a Grade one Basic school with a total pupil population of 1,250 with girls out numbering boys across the grades. It has four streams of Grades one to seven each and three of grades eight and nine. It has an average of 33 pupils per class making it the highest enrolling school in the district. There is a shortfall of 11 classrooms. With a staff turnover of 25, there is an obvious need for additional staff. The school hosts a Unit comprising pupils with an intellectual disability (9) and with hearing impairments (4). It opened in

1999. The classroom that is used as a unit in the afternoon, is also used by grade 8 pupils in the morning. One trained special teacher runs the unit.

Mulamatila Basic School started as a Local Education Authority primary school in 1939. It was known as Balovale Primary school until the Government changed the name to the present one after Independence. It has expanded into a Grade one Basic school. Grade one has three streams; Grade two has four streams; Grades three and four have five streams each; Grades five to seven have four streams each; and Grades eight and nine have two streams each. In each grade the girl –boy ratio is 3:2. Each class has an average of 60 pupils. There is an acute shortage of classroom accommodation. The number of teaching staff stands at 28 down by 10. For the staff, there is serious accommodation problem. The school hosts a Unit which opened in 1991. The Unit currently has seven (7) pupils (six of whom are girls). The Unit is handled by three trained special teachers.

3.7 Summary

The chapter has provided background to geographical, political/administrative, cultural, demographic contexts as well as population size and growth rates of Zambia it has presented a brief outline of Zambia's educational system, structure, management, and policy was presented. In order to elucidate the predicament pupils with intellectual disabilities find themselves in as far as accessing basic and high school places is concerned, enrolment trends at the two levels have been presented. The chapter presented a brief overview of the history and development of special education in Zambia as well as an international perspective on special education. The chapter concluded by presenting existing educational arrangements for pupils with intellectual disabilities as well as profiles of the six basic schools in the study.

The next chapter presents a review of some of the available literature that is considered to be of direct relevance to the present study in order to place the

investigation within the context of similar studies thereby enriching it as well as providing a justification for it.

CHAPTER FOUR

REVIEW OF LITERATURE

4.0 General

The present chapter provides a review of the available literature that is considered to be of direct relevance to the present study in order to place the investigation within the context of similar studies thereby enriching it as well as providing a justification for it. The presentation is organized under four sections: Studies on the integration of pupils with disabilities; Studies on peer relations; Studies on peer tutoring; and Conclusion

4.1 Integrating pupils with disabilities

Several integration researchers (Gurainick, 1984; Byrne, Cunningham & Sloper, 1989; Gotlieb & Leyser, 1981; Stainback & Stainback, 1985 ; Falvey, 1995) have stated that the move towards mainstream education for pupils with intellectual disabilities was in response to several factors. Mainstream classrooms provide a richer language environment in which to develop communication skills and to develop peer relationships. It was expected that sociable behaviours would be increased by the imitation of typically developing pupils and by the opportunity to develop friendships at school with pupils from the same neighborhood. Also, mainstreaming provides typically developing pupils with experience of learning disabilities and so may promote greater tolerance and understanding of the variability in human abilities . Schools are a microcosm of society and reducing stigma attached to pupils with disabilities is a major goal of mainstreaming policy

4.1.1 Benefits of integration

Other research studies (Buysse & Bailey, 1993; Demchack & Drinkwater, 1992; Sloper & Tyler, 1992 report that integrating pupils with intellectual disabilities or mental retardation into mainstream classrooms benefits the pupils with intellectual disabilities academically. More importantly, it helps them develop

social skills and model appropriate social behaviour. However, one of the issues in the debate over mainstreaming pupils with intellectual disabilities is whether their learning could be at the expense of their mainstream peers in the same class. To the contrary, research studies by Goldstein & Gallagher (1992) and Lewis (1995) indicate that both pupils with and without disabilities derive mutual benefits from integration. Pupils with significant levels of disability can learn in mainstream environments and can do this without impeding the learning of others. They learn to interact positively with mainstream pupils, while mainstream pupils learn respect and acceptance of others who are different. The mainstream pupils come to realize, for instance, that although another child might not manage to talk, they communicate in other ways.

Lewis (1995) adds that to make integration work, teachers, integrating pupils with disabilities are generally provided with a range of useful strategies and have access to consultancy, additional professional development and teacher aide support. Where this is utilized well, the institutional opportunities are enhanced for all pupils in the class. In fact, because large group instruction is dominant with the general education classroom, it is important that teachers assist pupils with disabilities to develop group participation skills. Teachers need to learn to be better observers of pupil behaviour and to recognize the components of instruction that are problematic for pupils with disabilities. Including more small group instruction or changing the way in which whole class instruction is delivered in order to meet the needs of a more diverse pupil population could create a more productive teaching environment.

The integration issue has generated debate. Kalabula (1991a) reports that in the last two to three decades there has been much debate regarding the effectiveness of mainstream educational environments for pupils with disabilities. Parents of pupils with and without disabilities, teachers from both regular and special education schools have all posed valid arguments for and against integration. They ask such questions as: will pupils with disabilities receive as

good a quality of education in a mainstream school as they would in a special school? Will they have regular access to support and therapy? Will their peers be disadvantaged by their presence in the classroom?

Although there have been some very persuasive arguments presented in educational literature to support the integration of pupils with disabilities into regular basic and high schools, there is some evidence that the benefits of integration may not be as great as expected. As has been alluded to already, originally it was hoped that increased exposure to non-disabled models would facilitate the acquisition of appropriate social behaviours (Bandura, 1986), and that integration would promote increased acceptance of pupils with disabilities by their peers.

4.1.2 Effects of integration

Although an improvement of social behaviour in the classroom can occur (Gampel et al, 1974), studies have shown that there is not necessarily an increase in acceptance. In fact, some research suggests that increased contact between pupils with disabilities and those without can reduce acceptance of the disabled pupils (Kalabula, 1991b; Chambers and Kay, 1992). At present, it is still not clear what the reasons for low acceptance levels may be. Some researchers have suggested that excesses of aggressive behaviour by disabled pupils are responsible for the lack of contact (Gottlieb & Layser, 1981). Observations by Gampel et al (1974) suggest that the most distinctive behaviour feature of these pupils is their low rate of interaction within integrated schools.

Some studies on integration of pupils have found that integration of pupils with disabilities can be successful. A key factor appears to be the level of support that is given to the disabled, including the provision of sessions with non-disabled peers. Beltempo and Achille (1990) found that higher self-concept was associated with partial placement of pupils with disabilities than for either special

placement or full integration. However, differences in self-concept may not map onto differences in social and academic behaviour.

One argument for the integration of pupils with disabilities in mainstream schools is that it would result in the reduction of the stigma of segregated settings and increase the level of acceptance of pupils with disabilities by their non-disabled peers (Zigler & Hall, 1986; Kalabula, 1991b). While some social benefits of integration have been documented for pupils with disabilities (Buysse & Bailey, 1993; Demchack & Drinkwater, 1992; Sloper & Tyler, 1992), findings reflecting acceptance of pupils with disabilities in such settings have been rather mixed. It has been found that pupils with disabilities in integrated settings receive fewer positive and more negative nominations than their non disabled counterparts and have lower social status (Garrett and Crump, 1980; Nabuzoka & Smith, 1993), and are devalued more (Bickett & Milich, 1990). Other studies have found no significant differences in attitudes towards peers with disabilities, neither between mainstreamed and non mainstreamed pupils (Archie & Sherril, 1989), nor in proportions of pupils with disabilities and non-disabled pupils across accepted and unpopular socio-metric groups (Juvonen & Bear, 1992).

Center & Curry (1993) observed in their study that fully integrated pupils spend more time playing with their regular peers than do disabled pupils in segregated classes. This increased contact, however, did not lead to greater popularity or to better social interaction (as rated by teachers). Self-rated social interaction was actually more negative for integrated pupils than for segregated class pupils. Integrated pupils also reported lower satisfaction with peer relationships. These pupils seemed to be aware of their lack of acceptance and their inability to cope with the challenges of social situations they encountered. Observations that integrated pupils rate themselves lower in social adaptation even though their teachers noted no difference between integrated and segregated pupils struck a similar chord to results obtained by Eshel et al (1994). Both aspects are important. It has been argued that if the pupils lacked confidence in their abilities

they might be less likely to maintain unprompted involvement in activities (Bandura, 1986).

Contrasting findings raise questions as to the actual effects of integration on attitudes of mainstream pupils to their peers with disabilities. It may be that such findings reflect variations in the degree of integration. Some research studies (Newberry & Parish, 1987; Townsend et al, 1993; Voeltz, 1980, 1982) indicated that attitudes of mainstream pupils towards those with disabilities can be enhanced if there was more social interaction between them, rather than mere placement of pupils with disabilities in integrated units within the mainstream school.

Effects of interaction may, however, only apply to pupils with severe disabilities and not those with mild to moderate disabilities. One could argue that while mainstream peers may be "forgiving towards the former and thus make allowances for differences in behaviour, differences with the latter may not be so apparent. Mainstream pupils may thus have same socio-behavioural expectations for those with mild to moderate disabilities as they do for their fellow mainstream friends such that, when the pupils with mild-moderate disabilities fail to live up to the expectations, they are rejected or isolated. Newberry and Parish's (1987) findings support this view. Their findings show that pupils who have interacted with peers with different types of disabilities, compared to those who had not, showed more positive attitudes towards the pupils with all types of disabilities except those with learning disabilities, whose handicap was not so apparent.

4.2 Peer Relations

One of the most fundamental needs of every child is to be accepted and to have a sense of belonging. Research studies by Stainback & Stainback (1987); Parker & Asher (1993) have shown that socially rejected pupils are more likely to have negative attitudes to school, avoid school, and perform poorly academically. For

pupils with disabilities, this issue of rejection and isolation in school is even greater.

Peer relations are important to cognitive and social development (Piaget, 1932). They influence the development of self (Sullivan, 1953), facilitate cognitive development (Perret-Clermont, 1980) and contribute to the development of communicative competence (Gurainick, 1981). A child's social behaviour and personal- social effectiveness is largely governed by the experience of social interactions with peers (Baumrind, 1972; Charlesworth & Hartup, 1967) and the foundations of all adult relationships may originate in childhood (Duck, 1983).

However, when focusing on social interaction it is also imperative to include the self-perception of the actors interacting. Pupils in the unit' history of social rejection might also be expected to produce feelings of anxiety about social situations. Literature on motivational characteristics of the special unit pupils in academic situations indicates that pupils in the unit are more likely than mainstream pupils to experience feelings of failure and anxiety and to have negative performance expectancies (Balla & Zigler, 1979). Similar responses might be expected in the social domain. Within the social world of school, play situations could prove to be especially important and problematic for unit pupils. These situations are important because social contacts between unit pupils and mainstream pupils are likely to occur more in the context of play and games. They are problematic because in addition to any social skills pupils in the unit may lack, their game-playing competencies are often poor (Marlowe, 1979). Taylor, Asher, and Williams (1987) addressed these issues and concluded that the pupils in the unit in their study were found to be relatively withdrawn socially, that they displayed unskilled social behaviours, that they reported more dissatisfaction with their social relationships in school and expressed greater worry about game situations with peers. The same researchers also found that the pupils in the unit displayed more social interaction when only other pupils in the unit were present than when mainstream pupils were present. The

researchers speculate that the pupils' less interactive style can be caused by their difficulties in interacting successfully with higher functioning pupils. This tends to lead to patterns of avoidance behaviour. Their behaviour is a response to spending too little time together with their mainstream peers. As a consequence they demonstrate a "newcomer" pattern of shy withdrawn behaviour and experience more feelings of loneliness and anxiety.

There is good reason to believe that problems concerning rejection from or inability to participate in social interaction will increase proportionally with, the severity of the handicap and/or additional physical handicaps (Cole, 1988). Taking into account what we know about relationship oriented problems and intervention, a successful school intervention programme aimed at increasing the social interaction between pupils in the unit and mainstream pupils must not be uni-dimensional but multi-faceted. Adoption of Taylor, Asher, & Williams (1987) statement that: "for maximal effectiveness, such interventions should include direct training in positive social skills and should provide a supportive social context for the child" (p. 1332), might be the first step in developing strategies in order to promote integration of the pupils in the units. Caution should however be raised over the above cited findings. The referred findings originate mostly from the USA. The situation for the pupil within this culture need not be valid for such pupils belonging to other cultures. However, narrative accounts from other cultural settings in the world, e.g. the African cultures (Serpell, 1983), indicate that the problems of the pupils in the unit described earlier in the chapter might hold validity across cultures.

4.3 Peer Tutoring and Social Behaviours

Peer education in its simplest form involves a pupil helping another pupil learn a skill or task (Franca, Kerr, Reitz, & Lambert, 1990; Sprick, 1981). Peer tutoring can take various forms, such as class-wide peer tutoring, small groups, and same-age or cross age dyads (Miller, Barbetta, & Heron, 1994). One-to-one tutoring is the most effective form of instruction known, with a strong data base

supporting its use across pupils of almost all ages and conditions (Slavin, Madden, Dolan, Wasik, Ross, & Smith, 1994). The use of peers as tutors has a long, successful history in education (see Allen, 1976; Meacham, Montague, & Mclaughlin, 1994; Montague, Meacham, & Mclaughlin, 1991), and peer tutoring programmes have been found to be more effective than some traditional teacher-moderated instructional methods (Greenwood, Dinwiddie, Terry, Wade, Stanley, Thibadeau, & Delquadri, 1984; Kolher & Greenwood, 1989). Well-structured peer tutoring programmes need to be examined as ways to improve the academic achievement and social skills of pupils with disabilities, especially in inclusionary programmes in regular classrooms.

Peer tutoring research in the last two decades has focused on the potential benefits and drawbacks of involving pupils with disabilities as either tutors or tutees. Involving pupils, especially academically under-achieving pupils, in peer tutoring programmes demands strong justification. The potential academic benefits to tutees are persuasive, but insufficient, grounds for implementing peer tutoring programmes; if, however, peer tutoring can be shown to meet multiple needs of both tutors and tutees, arguments for its use will be more convincing (Cook, Scruggs, Mastropieri, & Casto, 1985-86; Osguthorpe & Scruggs, 1986). Researchers contend that peer tutoring does produce not only academic benefits for tutors and tutees, but social benefits as well. Improvements in academic achievement as a result of peer tutoring have been found in the area of math (Greenwood, et al., 1984; Maher, 1982), social studies (Maheady, Harper and Sacca; 1988, Maher, 1982), vocabulary (Greenwood, et al., 1984; Hogan and Prater, 1990), spelling (Greenwood, Terry, Arreaga-Mayer, & Finney, 1992; Greenwood, et al., 1984; Harper et al., 1990; Hogan and Prater, 1990; Muirhead & Mclaughlin, 1990), reading/language arts (Cochram, Feng, Cartledge, & Hamilton, 1993, Maher, 1982; Scruggs & Osguthorpe, 1987; Shisler, Osguthorpe & Eisman, 1987), and language and social play (Scruggs, Mastropieri, Viet, & Osguthorpe, 1986)

4.3.1 Social benefits of peer tutoring

There is a strong need for further understanding and analysis of the effect of peer tutoring on the social behaviour of pupils with disabilities. Pupils with mild disabilities frequently are deficient in cognitive social functions (Sabornie, 1991) and engage in inadequate or inappropriate social behaviours, which often result in their rejection by typical peers (Eiserman et al., 1987). Such problems may persist into adulthood, and are strongly linked to high drop-out rates, delinquency, mental health problems, and dishonorable discharges from the military (Barkley, 1990; Sabornie, 1991; Schumaker & Hazel, 1984).

Social skill deficits also affect friendships, employment relationships, and other aspects of normal day-to-day life (Sabornie, 1991). Schumaker and Hazel (1984) speculated that social skill deficiencies might be as disabling as academic deficits, creating double handicaps for many pupils with disabilities. Research attempts to discover the essential social competencies necessary for adjustment to work and social environments have identified: (a) competences that enable compliance with expected norms, such as listening, staying on-task, promptness, and compliance; and (b) competences that promote positive interactions with other people, such as positive responding, appropriate conversation skills, and the ability to maintain social interactions (Conway & Gow, 1988; Walker, Todis, Holmes, & Horton, 1988). Walker et al., (1988) further contend that social competence is situation-specific, with standards of acceptability established by the people relevant to a particular situation. Social skills are the distinctive strategies employed in social interactions that allow decisions to be made about an individual's social competence (Walker et al., 1988). Shumaker and Hazel (1984) define social skills as any cognitive function or overt behaviour in which an individual engages while interacting with another person or persons. Cognitive functions are further delineated as emphasizing; discriminating and acting on social cues; and anticipating and making decisions based on expected consequences of social behaviours (Schumaker & Hazel, 1984). Overt behaviours include nonverbal and verbal interaction elements, such as eye

contact, body language, utterances, and sign language. (Schumaker & Hazel, 1984). Social interactions are reciprocal, consisting of both initiations and responses (Odom & Strain, 1986).

Social skills deficiencies are frequently manifested as failures to initiate interactions with peers, failure to respond to peer initiations, or inappropriate responding to peer initiations (Goldstein & Ferrel, 1987). Many pupils with disabilities exhibit these interpersonal communication skill deficiencies (Goldstein & Ferrel, 1987; Maher, 1984), which contribute to their failure in regular education settings (Meadows, Neel, Scott & Parker, 1994; Mercer & Mercer, 1994; Sabornie, 1991). These pupils are often rejected by their non-disabled peers, and occasionally choose to reject their typical peers (Sabornie, 1991).

The movement towards full inclusion demands that educators recognize and intervene in social skills deficiencies. Competent social skills not only contribute to academic and vocational achievements, but might help pupils compensate for academic deficiencies (Mercer and Mercer, 1994). Regular education teachers may recognize the presence of social skills problems in pupils with behaviour disorders, but usually fail to make accommodations for them (Meadows et al., 1994). Pupils with behaviour disorders receive little, if any, social skills instruction in mainstream settings, and any training began in more segregated settings usually ceases when the child enters the regular classroom (Meadows et al., 1994). Meadows et al., (1994) reported findings that 79% of regular classroom teachers acknowledged using the same techniques to manage the behaviour of all pupils, whether disabled or not. They speculated that regular teachers may expect the behaviour problems of pupils with disabilities to have been fixed in self-contained or pull-out programmes, with no further adaptations necessary (Meadows et al., 1994). Such fixing does not occur and maintain without regular classroom intervention. Analog training has failed to produce significant generalization of social skills to other, more natural, environments (Strain & Shores, 1983); teaching pupils to role-play in clinical settings, such as pull-out or

self-contained classrooms, has failed to improve social skills in the regular classroom and on the play ground. One reason for this failure is that socially responsive peers are essential to any social behaviour intervention (Strain & Shores, 1983.) typical pupils both initiate social exchanges and respond to social initiations more than pupils who are socially withdrawn (Shores, 1987). Analog training rarely includes typical peers as models or subjects. Integrated settings, therefore, provide greater opportunity for the practice and reinforcement of social skills (Shore, 1987; Strain & Shores, 1983). Researchers have recommended structured peer tutoring programmes as a way to increase opportunities for pupils to engage in appropriate social interactions with their peers (Ehly & Larsen, 1976; Eiserman et al., 1987; Kohler & Greenwood, 1989; Scruggs et al., 1985; Strayhorn, Strain, & Walker, 1993).

Peer tutoring could augment social skills training by (a) promoting the generalization of social behaviours in integrated classroom settings and (b) involving typical peers as models of appropriate social interactions. Peer tutoring can improve the chance for pupils with disabilities to succeed in regular classrooms by not only increasing peer interactions (Miller, et al., 1994), but by establishing behaviours that promote peer acceptance, such as cooperation and positive reinforcement (Eiserman et al., 1987). Peer tutoring should not, however, be implemented simply for the benefit of pupils with disabilities, but should target typical pupils as well. Sabornie (1991) argued that social skills training procedures should target both pupils with disabilities and their peers. One possible benefit is increased social acceptance. Instructional interventions designed to increase the social acceptance of pupils with disabilities by their typical peers have primarily focused on altering the attitudes of typical pupils, while excluding actual contact with pupils with disabilities (Eiserman et al., 1987). Such analog attempts to create empathy and sensitivity may simply promote stereotyping of pupils with disabilities (Shisler et al., 1987). Peer tutoring deserves consideration as a way to accomplish this goal.

4.3.2 Research on Peer Tutoring with Social Measurements

Cochram et al. (1993) conducted a cross-age peer tutoring study involving 16 African-American 7 to 11 year old boys with behaviour disorders in a self-contained school. Eight pupils functioned as controls, four served as tutors, and four were tutees. Ratings for the pupils on a teacher-completed Behaviour Evaluation Scale ranged from 44 to 85 with particular difficulties exhibited in excessive motion, noncompliance, aggression towards adults and other pupils, and off-task behaviours. Pre- and post-treatment measures of social skills were rated by teachers, who assessed the pupils' social skills, problem behaviours, and academic competence; and by the pupils, who rated their own cooperation, assertion, empathy and self-control skills. Direct observation was also used to measure cooperative and uncooperative statements, and social validity was rated through individual interviews with pupils at the end of the study. Teachers perceived significant increases in tutees' social skills, decreases in problem behaviour, and significant academic achievement increases as compared to control pupils. Tutors were rated similarly in these social skills areas, but scored a significant decline in academic competence, nearly twice that of their controls. Increased academic cooperative statements and decreased uncooperative and put-down statements were observed during the tutorials and lunch period for all pupils involved in the intervention. The tutors and tutees also self-reported academic progress, improved interpersonal relationships, programme satisfaction, and a willingness to function as tutors or tutees again. Tutors reported improved understanding of the tutees, and teachers reported observing more positive attitudes towards schoolwork and increased self-confidence.

The authors credited the improvement in positive and cooperative statements to: (a) tutor training in prompting and feedback and reinforcement or corrective feedback for these behaviours; (b) the use of stickers as reinforcers for following the established format and for making more positive cooperative statements than negative or uncooperative statements; and (c) the tutorial nature of the intervention (Cochram et al., 1993). These pupils were rated among the worst

behaved in a self-contained school for pupils with behaviour disorders. The peer tutoring intervention produced significant improvements in their social skills. Perhaps a longer study, or one involving typical pupils would produce even better results.

Balenzano et al. (1993) conducted a successful reciprocal peer tutoring intervention with six preschool pupils with disabilities. Informal teacher observations throughout the study reported an increase in positive social interactions among dyad partners, peers choosing to sit by or work with tutoring partners during other activities, the spontaneous use of tutoring procedures with novel stimuli, increased sharing and language usage during structured playtime, and eagerness on the part of pupils to participate in tutoring sessions (Balenzano et al., 1993). A successful replication of this study by Tabecek et al. (1993) also resulted in anecdotal reports in increased socialization among peers across settings and time, and eagerness on the part of the pupils to participate. These studies found preschoolers with disabilities generalizing socialization skills learned in a peer-tutoring format to other classroom settings.

Franca et al. (1990) conducted a multiple baseline across-subjects study of peer tutoring in math. The participants were eight boys, ages 13-9 to 16-3, enrolled in a self-contained classroom in a private school for emotionally disturbed/behaviour-disordered pupils. Pre- and post-treatment measures were used to assess the results of the intervention on social status using a rating scale measure and a peer nomination measure that included both positive and negative sociometric criteria. Intra-dynamic ratings were further analyzed. Self-concept was measured with the Piers-Harris Pupils's Self-Concept Scale, and direct observation of social interactions during physical education classes was conducted to measure positive and negative verbal interactions. The results showed inconsistent changes in social status and self-concept, but positive interactions increased significantly and negative interactions decreased. Follow-up data for the first two dyads showed improvements in positive interactions

maintaining for the two tutors; with only slight decreases for the tutees; decreases in negative interactions maintained across all four pupils. This study found peer tutoring effective in improving social interactions between pupils in a self-contained school. Longer studies and the involvement of high-status or typical peers might produce effects that would register on self-concept instruments over time.

Maher (1982) conducted a 10-week comparison study involving three groups of six high school pupils with conduct disorders as either cross-age peer tutors, tutees in an established peer tutoring programme, or recipients of formal group counseling. Academic achievement was measured in regular-classroom math, language arts, and social science classes. Targeted social behaviours were the number of teacher-written disciplinary referrals made to the vice principal, and rate of attendance. The cross-age tutors made slight improvements in language arts over the counseling group, and significant improvements in social science over the peer- tutoring group. The cross-age tutors also had significantly fewer absences than either of the two groups whose absentee rates increased significantly throughout the intervention and follow-up periods (Maher, 1982). Maher also found the tutors to have significantly fewer disciplinary referrals than the others. Regular classroom teachers anecdotally reported positive changes in social behaviour changes in social behaviour only for the cross-age tutors. Maher's (1982) peer tutoring intervention not only required tutors to interact with younger pupils with disabilities, but also demanded that tutors walk to a different school, and spend 15 to 20 minutes each week collaborating with the tutee's special education teachers to plan lessons and evaluate the intervention. Increasing tutor responsibility within a well-structured cross-age peer- tutoring programme resulted in significant positive behaviour changes.

Lazerson (1980) measured social behaviour in a cross-age peer tutoring study, involving 60 withdrawn and aggressive pupils. Measurement took three forms: an adapted version of Luskzi and Shmuck's (1960) Self-Concept Scale was used

to measure pupil self-concepts, the Devereaux Elementary School Behaviour Rating Scale was used to measure aggressive and withdrawn behaviours, and teachers filled out a questionnaire at the conclusion of the study to rate pupil behaviour. Tutors received two brief training sessions in corrective and reinforcing feedback, but had free manipulation of the content material during tutorial sessions. The tutors were encouraged to hold sessions over 5 weeks for 20-30 minutes each, but the participation rate was low, with some pupils only meeting with their tutees as few as 5 of 23 possible sessions. The pupils who actively participated showed significant gains in attitude and self-concept, but Lazerson (1980) concedes that the study would have benefited from (a) teacher-generated structure; (b) consistent sessions, preferably daily for 20 minutes; (c) well-defined tutor and tutee roles; (d) better matching of dyad members; and (e) the implementation of evaluation procedures.

Labbo and Teale (1990) implemented a cross-age reading programme with 20 fifth grade pupils who were below average readers as measured by the Iowa Tests of Basic Skills. Many of them were also judged to be at-risk. Pupils were divided into three groups: one control, one to engage in art interactions with kindergarten pupils, and one to read to kindergarten pupils. The readers' roles had four structured stages: (a) teacher-guidance in selecting a picture book in the school library, individual repeated reading the book, and teacher-direction in how to introduce and discuss the book; (b) pre-reading collaboration with peers to share readings; (c) cross-age reading sessions; and (d) post-reading collaboration with the teacher. The Piers-Harris test was used to measure pupil self-concept and showed significant gains for the fifth grade readers. While not strictly a peer tutoring intervention, this study shows that creating well-structured teacher opportunities for pupils can improve their self-concepts.

Trapani and Gettinger (1989) compared the results of a structured social communication skills training intervention alone, and in combination with a cross-age reverse-role peer-tutoring component, to a control group. The subjects

were 20 fourth to sixth grade boys with learning disabilities, randomly assigned to one of three groups. Resource room teachers had rated the boys on the Walker Problem Behaviour Identification Checklist (WPBIC) as deficient in targeted social skills: Greeting, asking questions, answering questions, complimenting, and listening. The Test of Written Spelling (TWS) was used to measure spelling ability. The social skills training for the two intervention groups consisted of seven days of 30-minute direct instruction in the individual target behaviours, with pupils required to exhibit mastery by stating a behaviour's definition, correctly identifying positive and negative examples, and implementing the skill correctly in five role-playing situations. Pupils in the peer tutoring group then tutored typical second grade boys in spelling thrice weekly for four weeks. The 20-minute sessions were designed to provide multiple opportunities for the tutors to practice the targeted social skills. After each session, tutors completed a self-monitoring checklist, and received additional feedback on their use of the target behaviours from an observer. Separate observations were conducted three times in the natural classroom by trained independent naïve observers. These pre, mid-, and post-intervention observations randomly recorded occurrences of the target behaviours. Results showed (a) peer tutors scored higher on the TWS than either of the other three groups; (b) no significant difference on WPBIC scores; and (c) tutors exhibited significantly higher rates of both greeting and answering questions in the classroom. Anecdotal reports suggested that the tutors experienced an increased sense of personal responsibility. The authors speculate that the WPBIC ratings showed no significant improvements due to teacher bias and/or instrument insensitivity. The targeted social skills may not have been particularly valued by teachers, and changes may have occurred in so short a time, or been of such a nature that they failed to register on the WPBIC.

The tutoring intervention used in this study was designed to link social skills training and the generalized application of those skills to the natural classroom setting by providing opportunities for guided practice and active rehearsal of target behaviours. Scuggs et al. (1986) involved 24 third to fifth grade pupils with

behaviour disorders in a cross-age peer-tutoring programme. Pupils were randomly assigned to be either tutors or controls over four 5-week sessions. Tutees were three low functioning; severely multiple disabled pupils aged 10 to 12, enrolled in a separate self-contained classroom. Two tutors taught language skills using DISTAR materials, while the third modeled and consequated socially relevant play behaviour by playing classroom games with the tutee. The researchers measured a variety of social behaviours for the five weeks preceding and five weeks duration of each pupil's involvement as a tutor or control. Measurements were made with the Attitude Toward School survey, the Devereux Child Behaviour Rating Scale, absences, disciplinary actions by teachers, two independent observations by a naïve observer in different settings both before and after each pupil's involvement as either a tutor or control, and daily data on an individualized target behaviour for each tutor (i.e. kicking, arguing, positive comments). The results found no significant differences in absences between tutors and controls or in the number of disciplinary actions made by teachers. The formal instruments found no significant differences in attitudes toward school or behaviour ratings, and the control pupils alone made insignificant improvements in target controls. Observations found 14 tutors and 7 control pupils exhibiting more appropriate school behaviours, with tutors making insignificant more positive statements to tutees during sessions. Ten of the 12 tutors in this study self-reported improvements and satisfaction with the tutoring programme, while one moved before the study was completed and the other was concerned over missed school work. The results of this study illustrate the need to be carefully structure and monitor peer-tutoring programmes. Particular attention must be paid to dyad formation: involving pupils in separate classrooms, who have no further opportunities for meaningful social interactions is likely to do little to enhance the social behaviour of pupils with social deficits.

Giesecke et al., (1993) conducted a study involving fourth grade low-status tutors who were reading at the third grade level, and third grade tutees who read at grade level. Tutors received one week of 30 to 40 minute sessions over five

weeks. A multiple baseline design across sets of 20 words was employed, with the number of correctly identified sight words measured. A structured format was adopted, with tutors trained to use scripted lessons, various games, and testing and charting procedures. The Piers-Harris Pupils' Self-Concept Scale and individual pupil interviews were used to assess the tutors' self perceptions. The tutees showed dramatic improvements and sight word acquisition, with tutors also showing significant improvement. The Pier-Harris showed substantial post-test gains for three of the tutors, with one unavailable for testing. The tutors self-reported enthusiastic satisfaction, a desire to continue the programme, pleasure in *getting to help* other pupils, with only one tutor concerned about missed seat work. Teachers anecdotally reported improved tutor behaviour in the classroom. This was a well-structured and closely supervised tutoring programme. The authors contend that functioning competently in the role of teacher encouraged pupils to assume characteristics of leadership, (e.g. prestige, competence, authority). Implementing a class-wide peer tutoring programme would eliminate pupil concerns over missed work by involving all pupils simultaneously.

Graesser and Person (1993) found that separate peer tutoring programmes implemented with seventh graders and college pupils generated approximately 240 times more tutee questions than regular teacher-led instruction. They speculate that the tutoring setting removed some of the social barriers that typically hinder pupil questioning and created an environment where pupils felt comfortable and appropriate asking questions (Graesser and Person, 1993). In this case, peer tutoring increased pupil interactions drastically in an academic context. This was not designed to measure non-academic social interactions, but increased academic-oriented interactions in peer tutoring settings have been shown to generalize to other settings (Balenzano et al., 1993; Tabacek & Mclaughlin, 1994). Studies examining the effects of reverse-role peer tutoring in sign language on social behaviour found the tutors, who were labeled as pupils in the unit, engaging in significantly more positive social interactions with their

typical peers; an increase that maintained over time (Osguthorpe & Scruggs, 1986).

Maheady et al. (1988a) conducted an effective study of class-wide peer tutoring in a secondary resource room social studies programme, where pupils reported feeling they were better liked, peers were nicer to them and thought they were smarter, and that they in turn were nicer to their peers. Teachers also reported satisfaction with this programme. A similar study by Maheady et al, (1988b) in three regular social studies classrooms including 14 pupils with mild disabilities and 36 typical pupils produced significant academic improvements and was also pleasing to teachers and pupils. Maheady and Sainato (1985) evaluated the effects of peer tutoring on the social interactions, social status, and academic achievement of pupils in three regular fifth grade classrooms. One dyad was formed in each classroom, consisting of high-status tutor and low-status tutee. Thirty minutes of math tutoring prior to lunch produced significant improvement in the tutee's daily math scores. Observations of social interactions during lunch found an increase in positive exchanges and a decrease in negative social interactions which maintained somewhat over a four-week follow-up period. Slight positive changes in the social status of tutees were also noted. Inclusion programmes can use similar peer tutoring procedures to ease the transition of pupils with disabilities into regular classrooms. Further involving low-status tutees as tutors might increase social benefits and improve status even more significantly.

4.4 Summary

Literature provides extensive evidence supporting the use of peer tutoring. Achievement improves, and so do a host of social and affective outcomes. Repeated studies have shown that peer interaction is conducive, perhaps even essential, to a host of important early achievements: pupils' understanding of fairness, their self-esteem, their proclivities toward sharing and kindness, their

mastery of symbolic expression, their acquisition of role-taking and communication skills, and their development of creative and critical thinking.

Social skills training and the promotion of positive relationships between peers are important elements of successful education programmes (Strayhorn et al., 1993). Social interaction skills are best taught and learned through actual practice with others under close monitoring and supervision (Strayhorn et al., 1993). Peer tutoring programmes can increase and promote the generalization of social skills by providing opportunities for pupils to (a) learn and practice specific interactions skills and behaviours, (b) enhance self-confidence and language skills, (c) respond to and practice content material, (d) learn complex chained behaviours, and (e) engage in fun activities with cognitive benefits (Tabacek & Mclaughlin, 1994) in meaningful interaction with other pupils. Preventative measures are preferable in social behaviour education, and improving the overall effectiveness of classroom instruction with methods such as peer tutoring maybe more important than developing procedures to compensate for behaviour problems that occur as a result of poor quality instruction in the first place.

4.5 Conclusion

This chapter has presented a review of the available literature that is considered to be of direct relevance to the present study in order to place the investigation within the context of similar studies thereby enriching it as well as providing justification for it. The next chapter presents in detail the methodology used to collect and analyse data in order to provide answers to the questions raised in Chapter One of the study. The chapter builds on the introduction to the methodology provided in 1.5 and presents details relating to the type of research paradigm and research design employed in the study, the study area and sample size, the data collection instruments and procedures as well as the data analysis process.

CHAPTER FIVE

METHODOLOGY

5.0 General

The previous chapter provided a review of some of the available literature considered to be of direct relevance to the present study in order to place the investigation within the context of similar surveys thereby enriching it as well as providing a justification for it. Specifically, it focused on studies on the integration of pupils with disabilities; studies on peer relations; and studies on peer tutoring.

The present chapter explains the research procedure and techniques adopted in the study in order to provide answers to the questions raised in chapter One of the investigation. This chapter builds on that introduction and presents details relating to the type of research paradigm and research design employed in the study, the study area and sample size, the data collection instruments and procedures as well as the data analysis process. The chapter also states the criteria used to choose each research method and elucidates the research process as a whole.

The chapter comprises seven sub-sections. The first looks at what research is while the second stresses the importance of research in human society. The third focuses on the different paradigms used in research in general as well as the specific paradigm employed in the present study and why. The fourth sub-section discusses the research methodology used in the study by highlighting the strengths and weaknesses of some of the available research methods and justifying why a combination of specific methods was adopted. The fifth sub-section presents a detailed explanation of the specific procedures adopted in data collection while the sixth tenders information on data analysis. Finally, the seventh sub-section deals with ethical considerations.

5.1 Definition of Research

Research is the process by which new knowledge is created. As such it influences the direction in which an academic field or a community moves. In the Western model, the term “research” has been closely linked with formal, scientific inquiry, and it has been implied that the research is politically neutral. However, since new knowledge greatly influences the paved relationships in society, it is a highly political force. As Freire (1970) said of education, the research process and its products are never neutral. Research takes place within a given social setting and therefore cannot be divorced from the world view held by members of a given society. In this regard, research assumes a political dimension as evidenced in the types of approaches or paradigm used. The paradigms selected by individual researchers can help to show the motivation for the research, the use to which the information gathered is put as well as the persons who will have access to the information. It can also be said that research is a process of collecting data or information in order to establish or identify new phenomenon or to verify existing phenomenon in new ways. The Reader’s Digest Universal Dictionary (1986:1302) defines research as an “investigation or inquiry in order to gather new information or collate what is already known about a subject...” In this regard, the present study qualified as a research undertaking because it sought to gather new information on how an intervention can effectively be used in integrated basic schools to promote the social interactions between pupils with intellectual disabilities and their mainstream peers.

5.2 Importance of Research

Research has remained part and parcel of the human race from time immemorial. Through research, humanity has continued to seek new ways of enhancing the physical, social and emotional environment. Research that focuses on the social environment can be undertaken for a variety of reasons one of which would be to determine the impact of specific programmes on society for effective programme planning and implementation as well as monitoring and evaluation. Without research, it would not be possible to know

whether or not the implementation of a given programme is having the desired impact and, where necessary, to put in place appropriate interventions to address any shortcomings in good time. The present study sought to make a contribution to research on the efficacy of integrating of pupils with disabilities into mainstream basic schools by investigating the impact of an intervention on the social interactions of pupils with intellectual disabilities and their mainstream peers. In this regard, the study was seen as being of direct relevance to the betterment of the education system in that based on the findings, specific recommendations would be made to address any challenges that might have arisen from the implementation of the integration policy.

5.3 Research Paradigms

5.3.1 General

The concept of research paradigms was first popularized by Thomas Samuel Kuhn following his publication of *The Structure of Scientific Revolution* in 1962 in which he described a paradigm as a set of “general theoretical assumptions and laws and techniques for their application that the members of a particular scientific community are taught to adopt and sets the standard for the normal way in which inquiry is conducted” (Mautner, 1997:408). Kuhn’s view of a paradigm has been paraphrased variously as “essentially a collection of beliefs, shared by scientists, a set of agreements about how problems are to be understood.” According to Kuhn, paradigms are essential to scientific enquiry because no natural history can be interpreted in the absence of at least some implicit body of intertwined theoretical and methodological belief that permits selection, evaluation, and criticism. Simply stated, paradigms are ways in which people view the world or make interpretations of their situations.

Maquire (1987:10) describes a paradigm as “... a constellation of theories, questions, methods and procedures which share central values and themes.” He stresses that paradigms are extremely important to human existence because they determine perceptions and practices with disciplines” (ibid: 1). Kane (1995)

defines paradigms as “patterns or models for understanding” while Hebert (1990) considers a paradigm as “a conceptual framework or a body of assumptions, beliefs and related methods and techniques shared by a large group of scientists/practitioners at the same time.” He also stresses that paradigms often predetermine procedures.

The concept of paradigm as defined above suggests that the phenomenon develops in response to cultural and historical conditions and constitutes a conceptual framework for observing and making sense of the social world in which we live. Paradigms shape how people understand and interpret events in the world in relation to themselves, those they interact with and their interventions. They also define what counts as valuable scientific knowledge as well as which interventions and research projects receive funding.

In general, people tend to view the world or interpret their situations as either participants in the various areas of human endeavors or as observers. This division of the human society into participants and observers shows the political dimension that research can take or assume. In many cases, the elite, elite institutions and state agencies have been the initiators of and participants in the research process and have had absolute control over both the process and the results. The communities that have been researched on have remained observers from a distance.

In recent years, there has been growing dissatisfaction with elite-based research approaches, which do not address issues regarding how, or why certain phenomena occur from the perspective of the subjects. These issues cannot be addressed unless input is obtained from members of the part of society being researched on which until now has been considered as mere paradigms which take into account the role and views of the subjects of research and which support the generation of knowledge of empowerment rather than for domination. They attempt to present people as researchers themselves in pursuit of answers

to the questions of their daily struggle and survival in order to promote action that will change their social position and quality of life (Tandon, 1988).

5.3.2 Qualitative and Quantitative research

In the social sciences area of education, most research can be classified as fitting into one of two paradigms. Although Guba (1978) originally termed these as naturalistic and rationalistic research, they are currently referred to as qualitative research and quantitative research. The quantitative approach has dominated the field of education since the 1950's and is the major approach used for research today. However, the qualitative approach gained recognition in the 1980's and is acknowledged today as an appropriate way of conducting research.

Quantitative research reflects the traditional scientific approach to problem solving. It assumes that there is a single reality that can be broken down into variables. Identifying and isolating different variables can establish cause and effect relationships. The purpose of this type of research is to test hypotheses that have been developed before the research project started and to form conclusions that can be generalized to other situations. The emphasis in this approach is upon measurement, comparison, and objectivity.

In contrast, qualitative research is based on the assumption that multiple realities exist in people's perception of the world. Hence, in order to understand phenomenon in the world multivariate approaches are needed; information from a wide variety of sources must be sought and combined in a meaningful way. Since perceptions are an internal process and not observable, one of the prime methods of obtaining them is by talking with people in focused interviews. The purpose of qualitative research is to better understand a phenomenon. The emphasis in this approach is upon description, uncovering patterns in the data, giving voice to the participants, and maintaining flexibility as the research project develops.

While both paradigms are valid when they are conducted rigorously and when they are applied to the right type of research question. The qualitative approach is more compatible with the traditional human way of knowing. It is holistic in nature. It assumes that research situations like all situations are multivariate. It is flexible rather than rigid. It is contextual rather than antiseptically objective. It seeks conclusions that can be applied to local situations rather than broad generalization. It honors the voices of the people rather than seeking the anonymity of numbers.

The research questions that people ask are tied directly to their assumptions about life and about what is important in life. How the questions are influenced by their worldview. Thus, both the quantitative and qualitative approaches are valid ways of doing research. However, the quantitative approach has been and currently is the dominant method for doing research in the academic community. Many people recognize it as the only appropriate method for doing real research. While qualitative research is developing a strong following because it is a way to answer many of the relevant questions people have. It still is not on an equal standing with quantitative research in terms of prestige within the academic community.

5.4 Research Designs

5.4.1 General

Research design refers to the plan and structure of the investigation used to obtain evidence to answer research questions. The design describes the procedures for conducting the study, including when, from whom, and under what conditions the data will be obtained. In other words, design indicates how the research is set up: what happens to the subjects and what methods of data collection are used. The major types of quantitative research designs are the 'Experimental' ones which include the true experimental; quasi-experimental; and the single subject designs. It also includes the 'Non-experimental' ones which are the descriptive and ex-post-facto designs. The four major qualitative research

designs are the ethnography, case studies, and phenomenological and historical research. These are discussed below under the headings quantitative and qualitative research designs.

5.4.2 Quantitative research designs

These designs maximize objectivity by using numbers, statistics, structure, and experimenter control. In the experimental research, the researcher creates a new situation in which he/she can manipulate the factors that need to be investigated. This allows the researcher to conduct objective observations under carefully designed circumstances. Usually an hypothesis is used which serves as basis for the research. Two sample groups of individuals are used, namely an experimental group and a control group. These two groups are then divided into comparable variables such as age, gender, intelligence, socio-economic levels, etc.

In experimental research the researcher should have optimal control over the research situation. He has full control over the independent variable in the sense that he/she may determine which levels of it should be used. He/she also has considerable control over irrelevant variables, also called nuisance variables. A nuisance variable is any variable which may influence the dependent variable but which was not mentioned in the research hypothesis and which the researcher must try to control.

The various groups should be purposely formed so that they are as far as possible alike in terms of variables except the one of which the effect is being investigated. Instead of completely eliminating nuisance variables, researchers attempt to hold them constant for all groups. One should distinguish between pre-experimental (non-experimental), true experimental, quasi-experimental designs and single-subject designs. These are briefly discussed below.

The pre-experimental designs control very few of the sources of invalidity. None of these designs has random assignment of subjects to groups. In the One-shot case study a group of subjects receives a treatment followed by a test to evaluate the treatment. This design fails the tests of good research. Although very weak, the One-group pretest-posttest design is better than the previous one in that we can at least observe if any change in performance has occurred. On the other hand, the Static group comparison compares two groups, one of which receives the treatment and the other does not. Since the two groups were selected intact rather than being randomly formed, one is unable to determine whether any differences between the groups were caused by treatment conditions. This design is subject to invalidity because of selection biases.

The quasi-experimental designs include the Nonequivalent (pretest and posttest) Control Group design, which is a popular approach to quasi-experiments. In this design, the experimental group A and control group B are selected without random assignment. Both groups take a pretest and a posttest, and only the experimental group receives the treatment. In the Single Group Interrupted Time Series design, the researcher records measures for a single group and observes their behaviour both before and after a treatment. The third design in this category is the Control Group Interrupted Time-Series design which is a modification of the single group interrupted design wherein two groups of subjects, not randomly assigned, are observed over time. A treatment is administered to only one of the groups (Group A).

The True experimental designs carry this name because the groups are randomly formed, allowing the assumption that they were equivalent at the beginning of the research. This controls all sources of invalidity that are based on non-equivalency of groups. Only the researcher can make sure that nothing happens to one group and not the other. One of the True experimental designs is the Pretest-Posttest Control design the procedure of which involves the random assignment of subjects to two groups, the administration of a pretest and

a posttest to both groups, and the treatment administered to only the experimental group A. The other design is the Posttest-Only Control Group Design, which controls for any confounding effects of a pretest and is a popular experimental design. The subjects are assigned randomly to groups, a pretest and the treatment are given to only the experimental group, and both groups are measured on the posttest. Yet another design is the Randomized Solomon Four Group Design, which involves the random assignment of subjects to four groups. Pretests and treatments are varied for the four groups. All groups receive a posttest.

The A-B-A Single –Subject design involves multiple observations of a single individual. The target behaviour of a single individual is established over time – called the baseline. Once stability of this baseline is established, the researcher administers a treatment. Observations continue over time after the treatment has been removed.

The Non-experimental designs include Descriptive research, Ex post facto research and Historical research. The purpose of descriptive research is to describe that which exists as accurately and clearly as possible. It differs from experimental research in the sense that it accounts for what has already occurred; in the experimental the researcher arranges for events to happen. The majority of educational studies that are reported in the literature are descriptive rather than experimental. They look at individuals, groups, institutions, methods and materials in order to describe, compare, contrast, classify, analyze and interpret the entities and the events that constitute their various fields of enquiry. Cohen & Manion (1982:48) deal with three types of descriptive research under the umbrella term, development research. The three types are longitudinal, cross-sectional and trend or prediction studies. Collectively, they are termed developmental research because they describe what the present relationships are among variables in a given situation and to account for changes occurring in those relationships. Ex post facto research refers to those studies which

investigate possible cause-and –effect relationships by observing an existing condition or state of affairs and searching back in time for possible causal factors. Ex post facto research, then, is a method of teasing out possible antecedents of events that have happened and cannot, because of this fact, be manipulated by the researcher.

5.4.3 Qualitative research designs

Qualitative research designs differ from quantitative research designs in that they usually do not provide the researcher with a step-by-step plan or a fixed recipe to follow. As was observed earlier, in quantitative research the design determines the researcher's choices and actions, while in qualitative research the researcher's choices and actions determine the design. In other words, qualitative researchers will, during the research process, create the research design best suited to the research. In this section are presented strategies of enquiry or tools that could be used to design qualitative research.

Ethnography is a strategy of enquiry characterized by observation (participant observation) and description of a small number of cases. The researcher studies an intact cultural group in a natural setting during a prolonged period of time by collecting, primarily, observational data. Data are mainly collected through ethnographic interviews and data analysis is mainly interpretive, involving descriptions of the phenomena.

Case study research is a time-honored, traditional approach to the study of topics in the social sciences. In recent years there has been increased attention to implementation of case studies in a systematic, stand-alone manner, which increases the validity of associated findings. However, although case study research may be used in its own right, it is more often recommended as part of a multi-method approach (“triangulation”) in which the same dependent variable is investigated using multiple additional procedures (survey research, sociometry, focus groups, content analysis, ethnography, participant observation, narration

analysis, archival data, or others). In a case study the researcher explores a single entity or phenomenon (the case) bound by time and activity (a programme, event, process, institution, or social group) and collects detailed information by using a variety of data collection procedures during a sustainable period of time (Yin, 1989 as cited by Creswell, 1994:12).

Grounded theory is a form of comparative case-oriented explanation-building popularized in sociology by Glaser and Strauss (1967), related to ethnography. The researcher examines cases which are similar on many variables but which differ on a dependent variable in order to discern common causal factors. In this way, advocates of grounded theory seek a continuous interplay between data collection and theoretical analysis. Whereas in the conventional scientific method the researcher starts with a priori theories to be tested and then collects data, in grounded theory the researcher starts with data collection and then induces theory. Also, the data for "grounded theory" may be broader than traditional case studies, and may include participant observations, field notes, event chronologies, or other textual transcripts. As analysis of such transcripts is central, coding becomes an important issue. Though it ranges from the informal to the quantitatively structured, as a rule, research based on grounded theory will have tabular schedules of coded variables which are being tracked in the transcripts.

Phenomenology is an approach, which aims at understanding and interpreting the meaning that subjects give to their everyday lives. In order to accomplish this, the researcher should be able to enter the subject's life and world. This is mainly done by means of naturalistic methods of study, analyzing the conversations and interaction that researchers have with subjects. Researchers using this strategy of interpretative enquiry will mainly utilize participant observation and interviewing as methods of data collection. Data are systematically collected and analyzed within a specific context (De Vos, 2000:80).

Finally, historical research has been defined as the systematic and objective location, evaluation and synthesis of evidence in order to establish facts and draw conclusions about past events (Borg, 1963). Historical researchers have to locate existing sources. Such sources may consist of documents, (for example newspaper reports, law reports, correspondence), official statistics and relics in which information from the past has been preserved. The researcher in no way interferes or intervenes in the events and typically does not observe them directly, but describes, analyses, and interprets those that have already taken place. Historical research may concern itself with an individual, a group, a movement, an idea or an institution.

5.5 Observational field research

Observational research techniques solely involve the researcher or researchers in making observations. There are many positive aspects of the observational research. Observations are usually flexible and do not necessarily need to be structured around a hypothesis (remember a hypothesis is a statement about what you expect to observe). For instance, before undertaking more structured research, a researcher may conduct observations in order to form research questions. This is called descriptive research. In terms of validity, observational research findings are considered to be strong. Trochim states that validity is the best available approximation to the truth of a given proposition, inference, or conclusion. Observational research findings are considered strong in validity because the researcher is able to collect a depth of information about a particular behaviour. However, there are negative aspects. There are problems with reliability and generalizability. Reliability refers to the extent that observations can be replicated. Seeing behaviours occur over and over again may be a time consuming task. Generalizability, or external validity, is described by Trochim as the extent that the study's findings would also be true for other people, in other places, and at other times. In observational research, findings may only reflect a unique population and therefore cannot be generalized to others. There are also problems with researcher bias. Often it is assumed that the researcher may, see

what they want to see. Bias, however, can often be overcome with training or electronically recording observations. Hence, overall, observations are a valuable tool for researchers.

Types of observations include direct (reactive) observation. In direct observations, people know that you are watching them. There is a concern that individuals will change their actions rather than showing you what they're really like. This is not necessarily bad, however. For example, the contrived behaviour may reveal aspects of social desirability, how they feel about sharing their feelings in front of others or privacy in a relationship. Even the most contrived behaviour is difficult to maintain over time. A long-term observational study will often catch a glimpse of the natural behaviour. Other problems concern the generalizability of findings. The sample of individuals may not be representative of the population or the behaviours observed are not representative of the individual (you may catch the person on a bad day). Again, long-term observational studies will often overcome the problem of external validity.

Unobtrusive Observations involve any method for studying behaviour where individuals do not know they are being observed. There is not the concern that the observer may change the subject's behaviour. When conducting unobtrusive observations, issues of validity need to be considered. Numerous observations of a representative sample need to take place in order to generalize the findings. This is especially difficult when looking at a particular group. Many groups possess unique characteristics, which make them interesting studies. Hence, often such findings are not strong in external validity. Also, replication is difficult when using non-conventional measures (non-conventional meaning unobtrusive observation). Observations of a very specific behaviour are difficult to replicate in studies especially if the researcher is a group participant. The main problem with unobtrusive measures, however, is ethical. Issues involving informed consent and invasion of privacy are paramount here.

In Disguised Field Observations, the researcher pretends to join or actually is a member of a group and records data about that group. The group does not know they are being observed for research purposes. Here, the observer may take on a number of roles. First, the observer may decide to become a complete-participant in which they are studying something they are already a member of. Ethically, participant-observers have the most problems. Certainly there are degrees of deception at work. The sensitivity of the topic and the degree of confidentiality are important issues to consider. Watching classmates' struggles with test-anxiety is a lot different than joining alcoholics anonymous. In all, disguised field experiments are likely to yield reliable data but the ethical dilemmas are a trade-off.

5.6 Application to the present study

5.6.1 General

Cohen and Manion (1998:106) contend that unlike the experimenter who manipulates variables to determine their causal significance or the surveyor who asks standardized questions of large, representative samples of individuals, the case study researcher typically observes the characteristics of an individual unit – a child, a clique, a class, a school or a community. The purpose of the observations was to probe deeply and to analyze intensively the multifarious phenomenon that constitute the social interactions of basic school pupils in the unit with a view to establishing generalizations about the wider population of pupils in the unit with intellectual disabilities to which the six special units in the study belong.

The present antipathy towards the statistical –experimental paradigm has created something of an industry in case study research. Such wide use of the case study in contemporary social science and educational research is marked by an equally diverse range of techniques employed in the collection and

analysis of both qualitative and quantitative data. Whatever the problem or the approach, at the heart of every case lies a method of observation.

There are two principal types of observation as has been noted earlier in the chapter - participant observation and non-participant observation. This study used the former approach. The approach was preferred because the task of educational investigator is very often to explain the means by which an orderly social world is established and maintained in terms of its shared meanings. The participant observation techniques employed in this task had several inherent advantages. Firstly, observational study is superior to experiments and surveys when data are being collected on non-verbal behaviour as was the case in this study. Secondly, in observation studies, the researcher was able to discern ongoing behaviour as it occurred and was able to make appropriate notes about its salient features. Thirdly, because case study observations take place over an extended period of time, the researcher was able to develop more intimate and informal relationships with those the researcher was observing, generally in more natural environments than those in which experiments and surveys are conducted. Lastly, case study observations are less reactive than other types of data-gathering methods. For example, in laboratory-based experiments and in surveys that depend upon verbal responses to structured questions, bias can be introduced in the very data that researcher are attempting to study.

Although the use of qualitative research methods would have been sufficient for the present study, it was felt that a combination of both qualitative and quantitative approaches would produce a better and deeper understanding of the patterns of social interaction in integrated basic schools. This is in line with Dey (1995) who advises that both qualitative and quantitative approaches should be used as appropriate because both have strong and appropriate factors which could be used to provide more comprehensive and fuller evaluation of the results.

Earlier, case study researchers have been described as typically engaged in observing the characteristics of an individual unit. A contrast of case study researchers was made with experimenters who were typically described as being concerned with the manipulation of variables in order to determine their cause significance. That distinction, as far as this study is concerned, is only partly true.

This study employed a single-case research as an experimental methodology in addition to the case study methodology described above. The single case study was preferred because it involved the continuous assessment of the behaviour of basic school pupils over a period of time, requiring on the part of the researcher the administration of measures on multiple occasions within separate phases of the study. Also, the single case study involved 'intervention effects' which were replicated in the same subjects over time. Continuous assessment was used as a basis for drawing inferences about the effectiveness of intervention procedures.

The characteristics of single- case research studies are discussed by Kazdin (1982) in terms of ABAB designs, the basic experimental format in most single-case researches. ABAB designs, Kazdin observes, consists of a family of procedures in which observations of performance are made over time for a given client or group of clients. Over the course of the investigation, changes are made in the experimental conditions to which the group was exposed.

This study used the ABAB design to examine the effects of intervention by alternating the baseline condition (the A phase), where no intervention is in effect, with the intervention condition (the B phase). The A and B phases were then repeated to complete the four phases. The effects of the intervention were clear if performance improved during the first intervention phase, reverted to or approached original baseline levels of performance when the treatment was withdrawn, and improved again when treatment was recommenced in the second intervention phase.

The present study would therefore be best described as being both a case study and a single-subject experimental research.

5.7 Data Collection

5.7.1 Population

A population is a collection objects, events or individuals having some common characteristics that the researcher is interested in studying (Roscoe, as cited by Mouton, 1996:134). A population is the sum total of all the cases that meet a given definition of the unit of analysis. The population of this study consisted of pupils in the unit, special unit teachers, mainstream pupils, mainstream teachers and Head teachers in six basic schools in the North-Western and Western provinces of Zambia.

5.7.2 Sampling

Sampling is a process of selecting a few (a sample) from a bigger group (the sampling population) to become the basis for estimating or predicting a fact, situation or outcome regarding the bigger group in which one is interested. The basic objective of any sampling design is to minimize, within the limitation of cost, the gap between the values obtained from the sample and those prevalent in the population. Sampling is an important aspect in research because it facilitates the representation of the population from a few participants from a few participants in the study. According to Robson (1993) sampling in social research is referred to as 'the search for typicality'. The sample should closely relate to the real population. He further states that sampling is an important aspect of life in general and enquiry in particular and that judgments are made on the basis of fragmentary evidence.

Rudestam and Newton (1992) define a sample as a subset of the population that is taken to be a representation of the entire population. They believe that regardless of its size, a sample that is not representing the entire population is inadequate for testing purposes and the results can not be generalized. Kane

(1995) stresses that it is important to sample because studying the entire population would be very costly and time consuming. However, she emphasizes the fact that the results of the sample should be similar to those, which would be obtained if the entire population were involved in the study.

Taking a cue from some of the scholars mentioned above, this study employed sampling in varying degrees under each of the research methods presented in this chapter. In line with Mason's view that in qualitative research the logic of probability sampling is rarely employed, the present study used the non-probability sampling method because investigation sought to establish in-depth information on issues relating to the social interaction and attitudes of basic school pupils. Since the study employed non-probability sampling, the information was to be valued in relation to depth factual satisfaction. Probability sampling would not have been appropriate for the present study because the aim of the study was to establish social interaction.

5.7.3 Sample Size

Whereas all scholars would agree that determining an adequate sample size remains one of the most controversial aspects of sampling, all of them admit that given resources, the larger the representative sample used, the better. In most cases, however, researchers do not have the resources in terms of finances, time and manpower to be able to gather data from larger samples. However, when it comes to qualitative research, there are no specific rules to determine sample size. The sample size depends on what one wants to know, the purpose of the inquiry, what is at stake, what will be useful, what will have credibility, and what can be done with available time and resources. Robson (1993:217) renders support to this line reasoning by stating that "sample size in qualitative research is small.

The sample for the present study was drawn from six basic schools in the North-Western and Western provinces of Zambia. It comprised of 533 respondents of

whom 40 were pupils in units; 11 were unit teachers; 36 were mainstream teachers; 06 were Head teachers; 220 were peer tutors; and 220 were mainstream pupils who were not in contact with pupils in the units. Samples per school are shown in Table 1 below.

Table 15: Sample of schools, Unit pupils, Unit special teachers, mainstream pupils, mainstream teachers and Head teachers

Basic School	Number of Unit pupils	Number of Unit teachers	Number of mainstream teachers	Number of Head teachers	Number of mainstream pupils in contact	Number of mainstream pupils not in contact
Kikombe (Solwezi)	4	1	5	1	40	40
Chileng'a (Zambezi)	4	1	5	1	20	30
Chiweza (Kabompo)	7	2	5	1	40	30
Kalabo (Kalabo)	9	2	6	1	40	40
Kanyonyo (Mongu)	9	2	7	1	40	40
Mulamatala (Kaoma)	7	3	8	1	40	40
Sub total	40	11	36	6	220	220
Total sample	533					

5.7.4 Sampling techniques

Samples can be chosen on either a probability or a non-probability basis. A probability sample is selected according to mathematical guidelines whereby the chance for the selection of each unit is known. A non-probability sample, on the other hand, often relies on the fact that respondents are available, convenient to access and prepared to participate. Two systematic forms of non-probability sampling are available. These include purposive sampling and quota sampling.

A purposive sample is one where respondents are selected according to a specific pre-determined criterion, while a quota sample is a selection procedure whereby participants are chosen to match a pre-determined numerical distribution for the general population. Patton (op.cit) states that the logic and

power of purposive sampling lies in selecting information –rich cases for in-depth study. Information-rich cases are those from which one can learn a great deal about issues of central importance to the purpose of the research.

Both quota and purposive sampling techniques were used in the study. Through quota sampling, eleven special education teachers, thirty-six mainstream teachers, and 440 mainstream pupils were randomly selected from the six basic schools in the two provinces. A probability sampling technique was used to ensure that equal opportunity was extended to everyone who might be in the schools at the time of the study. The assumption was that any of the teachers and pupils found in the area at the time of the study would be in social contact with pupils in the unit and therefore would have something relevant to say on the nature of social interactions that are in place in a given school.

Purposive sampling techniques were used in selecting the six basic schools, 240 pupils in the unit, and six head teachers to participate in the study and single-case experiment for in-depth analysis and probing of issues. This means that of the 533 participants in the study, 440 participated in both filling in the questionnaire and 93 responded to the semi-structured interviews. The use of purposive sampling was to ensure that only gate-keepers or key informants were allowed to take part in the in-depth interviews. The assumption was that these categories of participants were more conversant with patterns of pupil social interactions and could help in counter-checking some of the facts obtained from the questionnaires.

5.8 Research Instruments

5.8.1 General

Silverman (1993) describes research methods as the specific techniques a researcher employs to obtain data and information during an investigation. This subsection describes the techniques and research instruments employed in the study and the criteria used to select them. The choice of which research method

to use was guided by six criteria adapted from Silverman (1993), Creswell (1994), Strauss and Corbin (1990) and Marshall and Rossman (1994). The six criteria are:

- (i) Appropriateness to the research objective, which involves whether the method chosen is capable of producing the findings of data needed to answer the questions posed in the study;
- (ii) Reliability, which involves whether or not the method, if repeated by a different person at the same time, or the same person at a later point in time, would the same results;
- (iii) Validity of the data collection method, which involves whether or not the researcher is able to obtain measurements of what he is really trying to measure;
- (iv) Representativeness or generalizability of the data collected, which relates to the extent to which one can transcend the sample in a case study to generalize about a wider population;
- (v) Explanatory power, which relates to whether or not the method will be able to explain all the questions raised in the research; and
- (vi) Administrative convenience, which involves considerations of cost and speed of obtaining information.

Each one of these criteria played a key role in guiding the researcher into choosing a combination of qualitative and quantitative research methods that were considered sufficient in addressing the research problem in a satisfactory manner. Specifically, four techniques were used: survey questionnaire, semi-structured interviews, participant observations and single-subject experiment.

5.8.2 Survey questionnaire

It has been suggested that survey questionnaire is crucial when the researcher wants to get a general idea of the nature of public opinion. Wimmer and Dominick (1994) identify the survey questionnaire as the key research instrument

in survey research and suggest four main types of questionnaires: mail survey questionnaire, telephone surveys, group administration and personal interview. This study applied the personal interview type of survey questionnaire. Wimmer and Dominick (1994) argue that the key advantage of using questionnaires is that they usually help researchers investigate problems in realistic settings, and that their costs are reasonable considering the amount of information gathered. They add that large amounts of data can be collected using a questionnaire with relative ease. One of the major disadvantages cited is that inappropriate wording or placement of questions within a questionnaire can bias results. In line with the six pieces of criteria identified under 5.5.5.1 it was felt that the use of survey questionnaire in addition to the single case experiment would enhance reliability and validity of the findings and conclusions in the present study.

At the end of the peer tutoring intervention an attitudes questionnaire was used to collect information. It targeted mainstream pupils in one grade three class of pupils who acted as peer tutors, which was in regular contact with pupils in the unit for a specified period. The questionnaire was also administered to another class of the same school, grade and gender ratio, which was not in contact with pupils in the unit.

The reason for using the two Grade three classes was that unit pupils were more likely to play with Grade threes because they are of almost the same age and cognitive level. Grade three pupils in both provinces are a product of the Break Through to Literacy (BTL) programme, which promotes the teaching and learning in an official local language in lower basic grades. It was therefore reasoned that the pupils might be more conversant with a local language than English (Appendix 1). The questionnaire was therefore translated into Silozi (Appendix 2), Kii-Kaonde (Appendix 3) and Luvale (Appendix 4) – the languages used in the areas where the selected schools are located.

An attitudes questionnaire was adapted to reflect the degree to which mainstream children considered either the unit or the children in it to be a welcome part of the overall school. In this context of assessing the general acceptance of children with disabilities, items were included which would reflect the respondent's inclination as regards associating with the children (e.g. "... to play with"), ideas about their characteristics (e.g. "Do they know how to play?" and "Are they dull ...?"), perceived approval of others (e.g. "Would your friends like you playing with them?" and "... would teachers ...?").

A score, representing the sum of values of ratings on each item of the questionnaire, and with high scores representing more positive or acceptance, was coded for each child. The scores were then subjected to a 2 (treatment) x 2 (gender) ANOVA. This indicated main effects of interaction to exposure and gender.

5.8.3 Semi-structured interviews

As stated above, the semi-structured was one of the four techniques used to collect data for the present study. Patton (1990) identifies interviews as one of the qualitative research methods and states that the purpose of interviewing is to find out what is in and on someone else's mind since we cannot observe feelings, thoughts and intentions. Wimmer and Dominick (1994) provide some criteria for in-depth interviews arguing that they are usually longer, more detailed, customized to individual respondents and can easily be influenced by the interview climate.

Kane (1995) states that a semi-structured interview does not have a standard format but there is an agenda that is used as a reminder to ensure that basic points are covered. The advantage is that semi-structured interviews can give greater depth than a questionnaire, because one can probe-encourage people to expand their answers and also crosscheck information. By this instrument, one is able to pursue useful information by asking questions relating to why and how

a given phenomenon occurs. According to Minichiello (1995), an interview guide or schedule is developed around a list of topics without fixed wording or fixed ordering of questions. The context of the interview is focused on the issues that are central to the research question, but the type of questioning and discussion allow for greater flexibility than does the survey questionnaire. Guided by the criteria outlined earlier, it was felt that an interview, given its explanatory power, was an appropriate technique to solicit information from all key informants in order for the researcher to objectively and adequately provide answers to all the research questions outlined in Chapter One of the study.

The use of semi-structured interviews enabled the researcher to meet the requirements of the naturalistic approach to data collection by discussing and asking additional probing questions as the responses were being given. The semi-structured interview was chosen for this study because it gave the researcher room for additional questions during the course of the interview. The semi-structured interview contained questions on social interactions between pupils in the unit and their mainstream peers.

To remain focused on the subject and to ensure that relevant information was obtained to answer the research questions adequately and objectively, I relied on an interview guide or an interview schedule. An interview guide is a list of questions or issues that are to be explored in the course of an interview. The advantage of the interview guide is that it ensures that basically the same information is obtained from a number of people by covering the same material. The interview guide helps make interviewing across a number of different people more systematic and comprehensive by delimiting in advance the issue or issues to be explored. In the present study, the content of the interview guide was based on the research questions in line with the research objectives as presented in Chapter One of the investigation.

The choice of who to interview was determined through snowball and purposive sampling. The interviews were conducted wherever the respondents felt most comfortable: their home, in their offices and other places. During this process, the researcher was able to probe further as well as to countercheck some of the major and interesting issues arising from the responses. For each research site, two of the semi-structured interview sessions were tape-recorded and later transcribed by the researcher. This allowed the researcher to become thoroughly immersed in the data, while also ensuring that the privacy of the participants was maintained. For the rest of the sessions, the researcher wrote down all the relevant responses to a given question and verified them before proceeding to ask the next question. The following guided interviews were used:

Interview Guide 1: The questions (Appendix 5) were used to interview pupils in the Unit at each school. It was designed to yield information on Unit pupils' experiences and perceptions of being integrated in a mainstream school.

Interview Guide 2: The questions (Appendix 6) were used to interview trained special education teachers at each school practicing in the Unit. It solicited their opinions on the social interactions between pupils in the unit and their mainstream peers.

Interview Guide 3: The questions (Appendix 7) were used to interview five (5) mainstream teachers at each school. It solicited their perceptions of the social interactions between pupils in the unit and their mainstream peers.

Interview Guide 4: The questions (Appendix 8) were used to interview the Head teacher at each school. It sought information on the Head teacher's perceptions of social interactions between pupils in the unit and their mainstream peers.

5.9 The peer tutor intervention programme

5.9.0 General

Intervention can take many forms. One ploy has been to use peers as helpers to assist in the development of social skills, and particularly play skills. As has been established in Chapter two, play behaviour is a key ingredient in adaptability learning, cognition, education and social behaviour. A peer tutor intervention programme was implemented in this study. the programme is described in detail in this section.

The starting point for the study was the development and finalization of data collection instruments and the selection of schools with special units in Northwestern and Western provinces. Subsequently, one mainstream class that would be in contact with pupils in the unit as peer tutors and the other, which would not, were identified. Finally, a special education teacher at each of the six schools was trained for the study in July 2005.

The training of special education teachers involved training them in the implementation of the intervention activities which would be carried out to try and foster social interaction between pupils in the unit and mainstream pupils from a selected class. The training covered the following aspects:

- Completing each special unit pupil's profile using a structured form before any activity could start.
- Using an observation schedule, to observe and write reports on pupils in the unit at play with the chosen group of mainstream pupils before and after they were trained.
- Teaching pupils in the unit basic play and social interaction skills as a way of preparing them for interactions with the chosen mainstream contact class.
- Teaching the chosen contact mainstream class about the mentally retarded pupils in the special unit and how best they can act as peer tutors to them.

Since the school term ended on 6th August 2005 and that schools were on recess till 6th September 2005, the period was used to translate the “Questionnaire on Pupils’ Attitudes towards Children with Disabilities and Integration” (Appendices 2 -4) into the three local languages by Grade three pupils (i.e. Silozi, Kaonde and Luvale).

Interaction activities were supervised by each school’s special teacher on daily basis and monitored by the researcher from time to time for a period of six months. Data collection was done by the researcher in all the six schools assisted by the special teacher at each school between the 14th October 2005 and 14th June 2006.

5.9.1 Settings

Observations were conducted in two situations, one where the peer tutor intervention was implemented, and one where it wasn’t executed, in order to investigate cross-situational generalization.

At each of the six basic schools in the study data were collected from two-out-door situations. One was an ‘Experimental situation’ in which pupils in the unit interacted with the chosen group from the mainstream during a 30-minute break. This situation was created in order to achieve maximal proximity between the pupils in the unit and the chosen group from the mainstream and in order to ensure that the subjects stayed at the same place thus making manipulations and repeated observations possible. The other situation was a 20-minute ‘Natural situation’, which constituted of a school area where pupils waited before they left for their homes. While the pupils in the unit in the experimental situation were only in close proximity to the chosen group from the mainstream, other mainstream pupils from several classes attended the natural situation.

5.9.2 Design and phases

The study was divided into five (5) distinct phases from which observations were collected. While the peer tutor programme was sequentially introduced in the Experimental situation, no manipulations were instigated in the natural situation. The following represent a description of the various phases of the study:

5.9.2.1 Phase1 – Baseline One: In this phase the two groups of subjects (the pupils in the unit and the chosen group from the mainstream) were instructed by their teachers to stay in the experimental situation throughout the break period. During this phase no other instructions were given to the pupils. They were allowed to engage in any form of play. If any of the pupils had to leave the situation, the patrolling teacher saw to it that they returned. In addition, the two groups were released 10 minutes earlier at the end of the day to allow more time for possible interaction in the chosen site as they waited to go home. However, the chosen group from the mainstream was not instructed to stay in this situation. The first baseline phase lasted for (4) weeks and 777 observations were collected in the experimental situation and 446 in the natural situation as follows:

Table 16: Phase 1 observations

Basic School	Experimental situation observations	Natural situation observations
Kikombe (Solwezi)	132	76
Chileng'a(Zambezi)	134	89
Chiweza(Kabompo)	104	74
Kalabo(Kalabo)	145	80
Kanyonyo (Mongu)	127	70
Mulamabila (Kaoma)	135	57
Total observations	777	446

It was discovered that during this period that the boys and girls engaged in various play activities. It was found that boys mostly engaged themselves in playing football and hide and seek, while girls usually were doing various sorts of circle plays where they were singing and dancing. An earlier assessment of each special unit pupil's development of the skills was carried out. The assessment showed that special unit boys had developed relatively poor skills in playing football. Concerning the girls, all of them showed relatively large deficits in performing singing and dancing in a circle. An important cause behind this displayed deficit was considered to be social shyness/withdrawal.

5.9.2.2 Phase 2 – Social skills training: At the beginning of this phase it was decided that peer tutors be created from the chosen group from the mainstream. The group was given basic information about the pupils in the unit. The necessity of including the pupils in the unit into the play was underscored. Feelings evoked by experiencing not to be included in the play fellowship were deepened, and the mainstream pupils were encouraged to imagine themselves socially excluded. After this, they were encouraged to ask questions about the pupils in the unit and discuss these questions in the group. It was decided that for each day eight mainstream pupils would play the role of peer tutors to pupils in the unit. However, it was underscored that the other mainstream pupils could also choose pupils in the unit as their tutees.

Based on the discovery made in Phase 1 that pupils in the unit lacked social play skills, it was found necessary to provide them social play skill training. A social play skill-training period was introduced in the curriculum of the pupils in the unit 20 minutes before the break five times a week. Boys from the chosen group from the mainstream were instructed by one specialist teacher how to train special unit boys who had poorly developed football skills. The specialist teacher also participated in the training of girls from the chosen group from the mainstream in how they would help the girls acquire the deficit skills.

It was hoped that this way the chosen mainstream group would gain skills of peer tutoring and eventually take over the role of the specialist teacher who withdrew from the experimental situation after the training. However, one teacher always remained behind in order to (ensure) that the pupils stayed in the observational area throughout the break. The play skills training phase lasted for 5 weeks and 674 observations were conducted in the experimental situation while 437 were carried out in the natural situation as follows:

Table 17: Phase 2 observations

Basic School	Experimental situation observations	Natural situation observations
Kikombe (Solwezi)	102	67
Chileng'a(Zambezi)	114	82
Chiweza(Kabompo)	94	74
Kalabo(Kalabo)	121	68
Kanyonyo (Mongu)	111	71
Mulamatila (Kaoma)	132	75
Total observations	674	437

5.9.2.3 Phase 3: Play skills plus prompting

In addition to the play skills training, the peer tutors prompted those pupils in the unit who did not engage in play. A typical prompting procedure involved a graduated sequence of prompts. The first prompt was simply a statement that told the child what to do (e.g. Fabeli, pass the ball to David). If the child did not respond to the verbal prompt, the peer tutor usually physically guided the special unit pupil to perform the interactive behaviour. The play skills training and prompting phase lasted for 2 weeks and 375 observations were undertaken in the experimental situation and 245 in the natural situation as follows:

Table 18: Phase 3 observations

Basic School	Experimental situation observations	Natural situation observations
Kikombe (Solwezi)	65	36
Chileng'a(Zambezi)	67	45
Chiweza(Kabompo)	70	43

Kalabo(Kalabo)	56	40
Kanyonyo (Mongu)	60	36
Mulamatila (Kaoma)	57	45
Total observations	375	245

5.9.2.4 Phase 4– Baseline Two: During this phase conditions were as in the first baseline. The pupils were told to stay in the experimental situation during break and no other instructions were given. As in the first baseline phase the teachers stayed out of sight but ensured that the pupils stayed in the experimental situation. The special education teacher stayed inside an adjacent class-room observing how the peer tutors carried out their task.. After the break this teacher gave the peer tutors feedback on how they had carried out their task. If the pupils had managed to satisfactorily include pupils in the unit they were praised. If they had not managed to include them, corrective feedback was given and strategies for more effective including them were described and discussed with the whole group. This phase lasted for 3 weeks and 350 observations were undertaken in the experimental situation while 213 were carried out in the natural situation as follows:

Table 19: Phase 4 observations

Basic School	Experimental situation observations	Natural situation observations
Kikombe (Solwezi)	56	31
Chileng'a(Zambezi)	59	40
Chiweza(Kabompo)	63	33
Kalabo(Kalabo)	60	37
Kanyonyo (Mongu)	54	31
Mulamatila (Kaoma)	58	41
Total observations	350	213

5.9.2.5 Phase 5 - One Month Follow-Up: This phase constituted a third baseline in which the pupils were just brought to the experimental situation and to stay there and play. The teachers kept out of sight but, as in the other phases, ensured that the pupils actually stayed in the situation. Again no instructions were given to the pupils about how they should behave in the natural situation. The one-month follow-up phase lasted for two weeks and 188 observations were carried out in the experimental situation while 119 were undertaken in the natural situation.

Table 20: Phase 5 observations

Basic School	Experimental situation observations	Natural situation observations
Kikombe (Solwezi)	32	16
Chileng'a (Zambezi)	27	15
Chiweza (Kabompo)	40	23
Kalabo (Kalabo)	36	24
Kanyonyo (Mongu)	28	26
Mulamatila (Kaoma)	25	15
Total observations	188	119

5.10 Differences in attitudes

In order to find out whether the peer tutors had different attitudes towards pupils in the unit after a period of social interactions with them compared to a group of mainstream pupils who had no social interaction with pupils in the unit on a day-to-day basis, an attitude questionnaire was constructed. During the one month follow-up the questionnaire was administered to the 40 peer tutors and to 40 mainstream pupils who had not interacted with the pupils in the unit. The six special education teachers carried out the administering of the attitude questionnaire. The questionnaires were written in an appropriate local language and all communication was done in the local language.

5.11 Data analysis

The culmination of the research process is always the eventual analysis, interpretation and presentation of findings. Silverman (1993) argues that it is important to remember that data analysis does not always come after data gathering. He points that data analysis, especially so in the case of interviews, starts during the research process itself. Silverman proposes that under all research circumstances, it is advisable to start analyzing research data in the light of research questions. Patton (1990) adds that whereas there are few agreed-on canons for qualitative data analysis, there are guidelines to help researchers analyze data. The data analysis procedure for the present study relied on some of the guidelines proposed by such scholars as Patton (1990) and Silverman (1993).

Following Silverman's proposition stated above, the researcher began the process of data analysis during the interviews by recording what was considered relevant to the research questions according to the interview guide. Patton proposes two strategies for analyzing interviews: the case-by-case approach and the across-case approach. In the case-by-case approach, the researcher writes a case study for each person interviewed or each unit studied. Under the across-case approach, the researcher puts together answers from different people on common questions or consolidates the different perspectives on a given theme or issue. Patton adds that although these strategies could be used separately, they are in most cases supplementary. The across-case approach was employed in the present study. The findings were also counted or enumerated as fit for a survey (Strauss and Corbin, 1990, Marshall and Rossman, 1995). Quotations of significant portions of responses obtained were also used to depict respondents' attitudes, in their own words. The data analysis exercise was verified by triangulation through presentation to key informants based in the research areas who speak the languages in question as mother tongues for input and meaningful criticism at least twice in the course of the study.

In the case of the in-depth interviews, the interview guides were used to help the researcher put similar views on a given issue together since the interview guides were structured on the basis of the objectives of study. As the presentation of the research findings would take the thematic structure, the researcher relied more on the across-case analysis technique whereby questions in the interview guides constituted the central themes. The views of all the participants were then taken and recorded under each of the themes. This process was repeated until all the responses were exhausted.

The across-case approach was also used to analyze responses to the survey questionnaires. Each item in the questionnaire constituted a theme under which all the responses to the item were recorded and consolidated until all the responses from all the participants were exhausted. Where some sub-themes emerged, these were first categorized under the main theme and later sub-categorized accordingly.

To enhance credibility, dependability and conformability, which are “the equivalent terms for reliability and validity for quantitative data” (Crabtree and Miller, 1992:234) the data collected were verified by using “triangulation, reflexivity and independent audits” (ibid). This was undertaken through member checks by recycling the analysis back to some of the informants and key members of the schools such as head teachers, mainstream and special education teachers as well as searching for disconfirming evidence from the available literature.

5.12 Ethical Considerations

The study took into account all possible and potential ethical issues. The measures undertaken to ensure compliance with ethical issues included maintenance of confidentiality of the people who participated in the study. Wimmer and Dominick (1994) identify the principle of autonomy or self-determination as the most important ethical issue requiring compliance on the

part of the researcher. The basic concept demands that the researcher respects the rights, values and decisions of the participants. In this study the values of the participants were given due respect. During the research, participants' responses were neither interfered with nor contested by the researcher. Informed consent was obtained from the people in charge of the places where the research was carried out and all the participants were treated equally.

5.13 Conclusion

The research findings, conclusions and recommendations contained in this study are not based on the researcher's data alone. They are juxtaposed, and often compared with other findings particularly those from studies highlighted in the literature review section of the thesis. They are also supported by the theoretical framework presented in Chapter one and echoed in Chapters five and six of the study. The information derived from other research was based on the similarity of the variables under analysis. In the case of documents, choice of data to record from them was based on the research questions, which constituted the major themes from the investigation.

5.14 Summary

This chapter has presented the approaches adopted for data collection and data analysis for the present study and the basis on which these were selected. The selection was determined on the need to get a wide range of answers to explain the research problem more clearly and conclusively. In this regard, the researcher followed suggestions made by several research methodology experts by using a combination of qualitative and quantitative research techniques. The criteria used to choose the methods and the analytical categories applied in the study have been presented in relative detail. Finally, the chapter has outlined the procedures used to analyze the data gathered from the field and the justification for using the said procedures.

5.15 Limitations

There are some threats to validity of this study which, must be taken into account when interpreting findings and making conclusions. Although the sample included all the special units for pupils with intellectual disabilities in Northwestern and Western Provinces, the six special units used in the study may not be representative of all the special units in the country. Therefore, generalizations of the findings regarding numbers of pupils with an intellectual disability in relation to other provinces in the country as a whole must be done with care. The sample of unit pupils as well as mainstream pupils was small in both provinces, which makes it difficult to generalize the findings pertaining to pupils' social interactions and the integration programme.

The pupils in the unit in all the six schools were not been formally assessed so that the degree of their intellectual disability is ascertained and thereafter correctly placed. It is therefore uncertain whether the pupils are mildly, moderately or severely disabled. Indeed some would have multiple disabilities and may have been included in the unit.

The special education teachers in the six special units did not have uniform qualifications and teaching experience. This means that although they were trained in the same way by the researcher, their transfer of learning to pupils would be different unit to unit. Therefore, the acquisition of play and social skills by pupils in the unit would vary from unit to unit in the same way it would vary on account of the pupils' degree of disability. In the same way the special education teachers used to train the chosen group of mainstream pupils into peer tutors would have differed from one teacher to the other.

From 2000 to 2004 the Ministry of Education ran an 'Inclusive Schooling' programme in the two provinces aimed at preparing teachers, other professionals, parents and the community for the mainstreaming of children with

special needs into mainstream school classrooms. This was done under the Education Sector Support Programme. Through workshops and training modules the programme reached many teachers. Due to this sensitization, it is likely that teachers' and Head teachers' responses to questionnaires may have been affected in that they may not have been honest. They may have thought that the study was a continuation of that programme and that any negative response to the research questionnaires would cost the school funding or a favorable rating.

Questionnaires used in the study may have included concepts that might not have been familiar to participants. This means that although the reliability coefficients of most scales were high, the validity of the measurements might be lower.

Both the period of training the teachers and of pupil – interaction were not long enough to prepare teachers for the study and pupils to socially interact. Lastly, perceptions of key stake holders are essential to the success of any innovation. This study was limited to pupils, teachers and Head teachers. Parents' and other professionals' perspectives were not taken into account directly.

The results of the study are therefore to be interpreted within the context of the study areas and would in no way be taken as a reflection of what would be obtained in other schools. The extent to which the study can be generalized would also be compromised by the smallness of the sample due to inadequate time and financial resources. A larger sample would require more time and more financial resources.

CHAPTER SIX

FINDINGS

6.0 General

Chapter five dealt with the methodological aspects of the investigation by focusing on the research procedures and techniques which were adopted in order to provide satisfactory answers to the questions raised in Chapter One of the study. Specifically, the chapter discussed the type of research paradigm and research design employed in the study and why these were selected. It also presented some specific details relating to the study area, the sample size, the data collection instruments and the data analysis process. The chapter also stated the criteria used to select each of the research methods.

The present chapter provides information on patterns of social interactions within the group of pupils in the unit and between them and two groups of mainstream pupils i.e. one group comprising peer tutors and another of mainstream pupils who were not peer tutors. The chapter presents data in table form showing mean percentage duration, proportion and statistically significant changes between one phase and the subsequent positive and negative interaction within pupils in the unit and between them and mainstream peers across phases in the experimental and natural situations.

The chapter is divided into three sections. The first section deals with patterns of social interaction in an experimental situation. The experimental section is further divided into five phases. The second section deals with patterns of social interaction in a natural situation. The section is also divided into five phases. The third and final section deals with measures of difference in attitudes of two groups of mainstream pupils i.e. one group comprising peer tutors who had socially interacted with the pupils in the unit and another group of mainstream pupils who had not.

6.1 The Experimental Situation

6.1.1 Table 21: Phase 1 - Baseline One (N=40):

SU PUPILS <----->SU PEERS		SU PUPILS <----->M PEERS	
+	-	+	-
% 15.8	1.6	13.0	0.5
p 51.1	5.2	42.1	1.6

SU PUPILS <----->SU PEERS = Pupils in the unit interact with Special Unit Peers

SU PUPILS <----->M PEERS = Pupils in the unit interact with mainstream peers

+ = Positive Interaction

- = Negative Interaction

* = $p < .05$

** = $p < .001$

The pupils in the unit had a total interaction of 30.9% (range 6.2% - 77.5%). They interacted somewhat more positively within themselves (range 1.1%-42.3%) than with mainstream peers (range 0%-34.3%). Negative interaction was low both within the group of pupils in the unit (range 0%-4.2%) and between pupils in the unit and mainstream peers (range 0%-2.4%)

6.1.2 Phase 2 : Social skills training and introduction of peer tutors

6.1.2.1 Table 22: Social training phase (N=40)

SU PUPILS <----->SU PEERS		SU PUPILS <----->M PEERS	
+	-	+	-
% 17.9	0.9	18.4	3.3*
p 42.2	2.2	45.4	8.1

SU PUPILS <----->SU PEERS = Pupils in the unit interact with Special Unit Peers

SU PUPILS <----->M PEERS = Pupils in the unit interact with mainstream peers

+ = Positive Interaction

- = Negative Interaction

* = $p < .05$

** = $p < .001$

A nearly 10% increase in total interaction (range 20.8% - 82.0%) occurred in the training phase. In this phase the group of pupils in the unit had slightly more positive interaction with mainstream peers (range 2.5% - 35.3%), than between themselves (range 5.5% - 51.5%). Compared to Baseline 1 the percentage of

negative interaction among pupils in the unit decreased (range 0% - 2.4%), while it increased with mainstream peers (range 0% - 8.8%). This increase was statistically significant, $T(7) = 2.38, p < .05$.

6.1.2.2 Table 23: Introduction of peer tutors (N=40)

SU PUPILS <---->SU PEERS		SU PUPILS <---->M PEERS	
+	-	+	-
% 4.5	0.5	58.9**	0.9
p 6.9	0.8	90.9	1.4

SU PUPILS <----->SU PEERS = Pupils in the unit interact with Special Unit Peers

SU PUPILS <----->M PEERS = Pupils in the unit interact with mainstream peers

+ = Positive Interaction - = Negative Interaction

* = $p < .05$

** = $p < .001$

With the introduction of peer tutors, the total interaction increased in this phase to 64.8%, (range 46.2% - 84.3%). The percentage of positive interaction between pupils in the unit and their mainstream peers reached its highest peak (range 38.5% - 82.3%). This increase was statistically significant $T(6) = 6.10, p < .001$. Positive interaction among pupils in the unit reached its lowest level (range 0% - 11.2%). Negative interaction within the group decreased slightly (range 0% - 3.5%), while an increase between the targets and their mainstream peers (range 0% - 5.2%) could be noted compared to the previous phase.

6.1.3 Table 24:Phase 3 - Play skills training plus prompting (N=40)

SU PUPILS <---->SU PEERS		SU PUPILS <---->M PEERS	
+	-	+	-
% 6.2	0	53.1*	0.3*
p 10.4	0	89.1	0.5

SU PUPILS <----->SU PEERS = Pupils in the unit interact with Special Unit Peers

SU PUPILS <----->M PEERS = Pupils in the unit interact with mainstream peers

+ = Positive Interaction - = Negative Interaction

* = $p < .05$

** = $p < .001$

In this phase the percentage of total interaction increased further to 50.6% (range 21.8% - 93.7%). The increase was large and statistically significant concerning positive interaction with mainstream peers (range 5.7% - 93.7%), $T(7) = 3.12, p < .05$. A decrease in positive interaction among pupils in the unit and between them and their mainstream peers was significantly reduced to a state close to 0, (range 0% - 0.9%), $T(7) = 2.70, p < .05$.

6.1.4 Table 25: Phase 4 - Baseline 2 (N=40)

SU PUPILS <---->SU PEERS		SU PUPILS <---->M PEERS	
	+	-	
%	12.1	1.4	24.6*
p	31.8	3.7	64.6

SU PUPILS <----->SU PEERS = Pupils in the unit interact with Special Unit Peers

SU PUPILS <----->M PEERS = Pupils in the unit interact with mainstream peers

+ = Positive Interaction - = Negative Interaction

* = $p < .05$

** = $p < .001$

Compared to the Play skills training plus prompting phase there occurred a decrease in the total interaction in this phase to 38.1% (range 16.9% - 56.1%), but still higher than in Baseline 1. A more than double decrease in the positive interaction with mainstream peers appeared (range 0.2% - 56.1%). This decrease was statistically significant, $T(7) = 2.48, p < .05$. Positive interaction among special unit (range 0.8% - 34.9%). Negative interaction did not occur with mainstream peers in this phase, while a slight increase occurred in the negative interaction with the group of pupils in the unit (range 0% - 8.8%).

6.1.5 Table 26: Phase 5 - One month follow-up (N=40)

SU PUPILS <---->SU PEERS		SU PUPILS <---->M PEERS	
	+	-	
%	8.7*	0.1	55.6
p	13.4	0.1	85.4

SU PUPILS <----->SU PEERS = Pupils in the unit interact with Special Unit Peers

SU PUPILS <----->M PEERS = Pupils in the unit interact with mainstream peers

+ = Positive Interaction - = Negative Interaction

* = $p < .05$

** = $p < .001$

The percentage of total interaction continued its increase to 65.1% (range 46.7% - 98.5%). A 3.3% decrease in positive interaction between pupils in the unit and their mainstream peers (range 34.2% - 98.5%) occurred compared to the introduction of peer tutors phase. Positive interaction within the group of pupils in the unit increased significantly (range 0% - 14.7%), $-2.87, p < .05$. Negative interaction within the group of pupils in the unit decreased (range 0% - 1.1%) as well as between pupils in the unit and their mainstream peers (range 0% - 2.6%)

6.2 The Natural Situation

In the natural situation, no interventions were executed. However, the same general increasing tendency in percentage of total interaction was observed in this situation as in the experimental situation, although not to the same extent. A great amount of the total increase in interactive behaviour in this situation can be attributed to increased positive interaction with the group of pupils in the unit, although a substantial amount can be attributed to increases in the positive interaction between pupils in the unit and their mainstream peers.

6.2.1 Phase 1: Baseline 1

Total interaction was in this phase 28.2% (range 4.3% - 62.0%). Positive interaction between pupils in the unit constituted the largest percentage of the total interaction (range 1.2% - 59.8%), while positive interaction between the pupils in the unit and their mainstream peers was at a low level (range 0% - 22.2%). The percentage of negative interaction was low both within the pupils in the unit (range 0% - 9.8%), and between the pupils in the unit and their mainstream peers (range 0% - 6.0%).

6.2.2 Phase 2: Social skills training and introduction of peer tutors

6.2.2.1 Social skills training

A very small (0.7%) increase in the total interaction occurred in this phase (range 3.7% - 54.0%). Positive interaction among pupils in the unit remained almost unchanged (range 0.4% - 42.9%), while it increased 2.2% between special unit pupils and peer tutors (range 0.4% - 29.6%). Negative interaction among pupils in the unit decreased slightly (range 0% - 3.3%), while it remained the same between the pupils in the unit and the peer tutors (range 0% - 3.4%).

6.2.2.2 Introduction of peer tutors

As in the experimental situation the largest increase in total interaction occurred in this phase. Total interaction increased from 16.4% to 50.5% (range 28.7% - 76.0%). Positive interaction within the group of special unit pupils constituted the largest share of the interaction (range 4.0% - 68.0%), while positive interaction between special unit pupils and peer tutors tripled (range 7.7% - 59.7%). This increase was statistically significant, $T(6) = -2.55$, $p < .05$. Negative interaction within the group of special unit pupils fell to its lowest level (range 0% - 2.7%) and did also decrease between special unit pupils and peer tutors (range 0% - 2.3%).

6.2.3 Phase 3: Play skills plus Prompting

The total interaction increased to 34.1% (range 1.3% - 64.4%) in this phase. Increases in positive interaction between the pupils in the unit and their peer tutors (range 0% - 58.4%) made the largest contribution to the overall increase in interaction, while interaction amongst pupils in the unit (range 0% - 60.4%) decreased by almost 3%. Negative interaction increased slightly within the pupils in the unit group (range 0% - 8.7%), while it was almost non-existent between pupils in the unit and peer tutors (range 0% - 0.4%).

6.2.4 Phase 4: Baseline 2

The percentage of total interaction remained the same in this phase (range 5.7% - 66.6%) compared to the previous phase. A 6.3% increase in positive interaction within the group of pupils in the unit (range 1.1% - 66.2%) was noted, while a 6.5% decrease occurred between pupils in the unit and peer tutors (range 0.4% - 19.0%). Negative interaction within the group of pupils in the unit decreased slightly (range 0% - 7.5%) and increased somewhat between special unit pupils and peer tutors (range 0% - 4.7%).

6.2.5 Phase 5: One Month Follow-Up

The percentage of total interaction increased further to 51.8% (range 20.8% - 87.4%). Positive interaction amongst pupils in the unit increased to its highest level (range 11.4% - 66.9%), while a slight decrease occurred between special unit pupils and peer tutors (range 1.3% - 66.5%). Negative interaction within the group of pupils in the unit fell to its lowest level (range 0% - 2.6%), while a slight increase compared to the previous phase occurred between special unit pupils and peer tutors (range 0% - 6.5%).

6.3 Conclusion

The findings suggest that the peer tutor intervention led to significant increases in both the experimental and natural situations. These increases in interaction were maintained in both situations at one-month follow-up. The programme demonstrated the ease with which attitudes can change in a very short period provided guidelines are established. On the one hand, there was a significant increase in the amount of associative play and co-operative play between unit pupils and their mainstream peers. Conversely, there was a significant decrease in the amount of behaviour that would be defined as socially inappropriate and in solitary play, being unoccupied, or being an onlooker among unit pupils. A decrease in the proportion of interactions that the unit pupils had with each other was also observed.

6.4 Differences in mainstream pupils' attitudes towards unit pupils

6.4.0 General

One of the major question of the study which sought an answer was whether there would be a difference in attitudes between the two mainstream groups tested. The peer tutor mainstream group, which had interacted with the pupils in the unit on a daily basis, was compared on attitudes with a comparable group of mainstream pupils who had not engaged in such regular interaction.

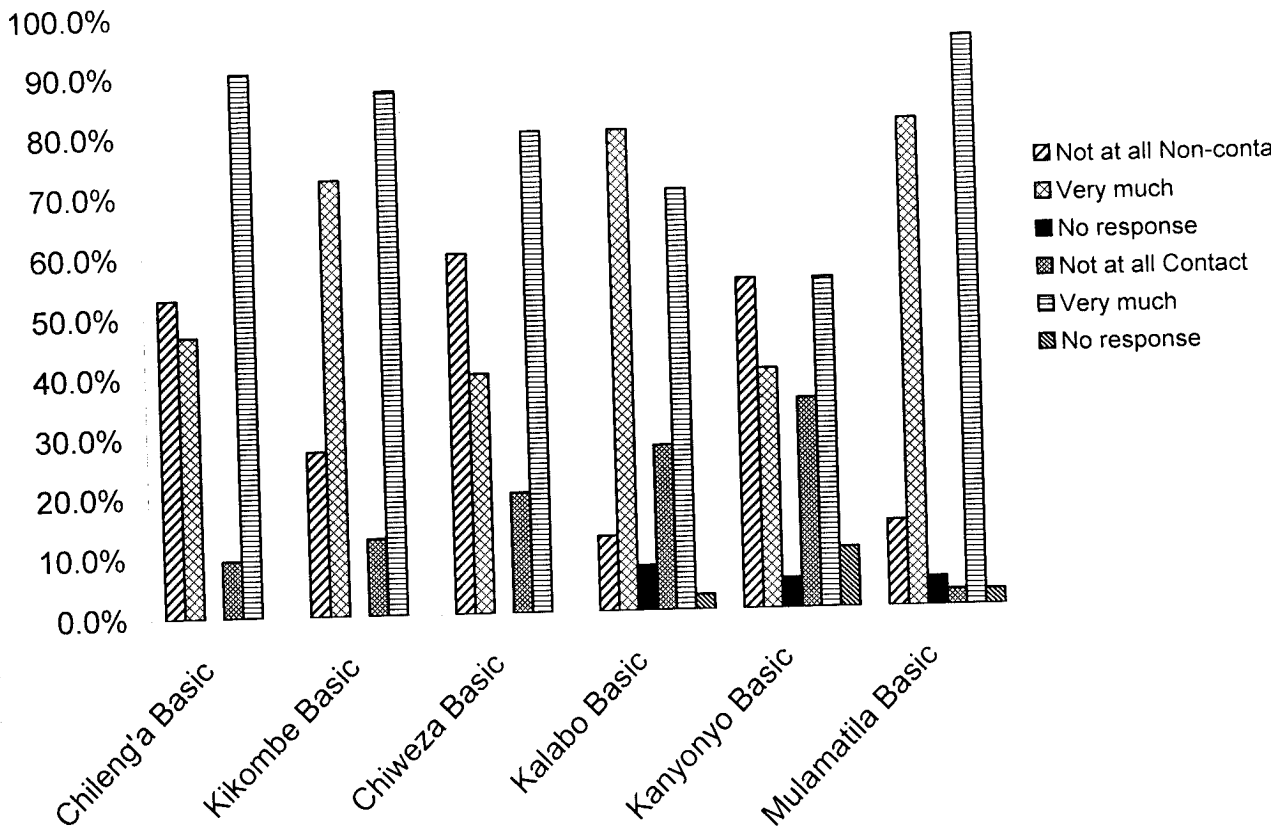
6.4.1 Mainstream pupils' attitudes towards unit pupils and integration

A questionnaire was administered individually to each of the 'peer tutor' pupils from a mainstream class and to a selected group of 'non peer tutor' pupils from a mainstream class. This was after the 'peer tutor' group had been in interaction with the pupils in the unit for a period of over one month. The results for both the peer tutor and non-peer tutor groups are shown in Table 26 and Figure 5.

Table 27: Effects of Social Interaction by School / Mainstream pupils' Positive and Negative Attitudes towards Pupils in the Units.

Name of school	Non-peer tutors				Peer tutors			
	Negative	Positive	No response	Total	Negative	Positive	No response	Total
Chileng'a Basic	17	15	-	32	2	19	-	21
	53.1%	46.9%	-	99%	9.5%	90.5%	-	100%
Kikombe Basic	11	29	-	40	5	34	-	39
	27.5%	72.5%	-	100%	12.8%	87.2%	-	100%
Chiweza Basic	18	12	-	30	8	32	-	40
	60.0%	40.0%	-	100%	20.0%	80.0%	-	100%
Kalabo Basic	5 ()	32 ()	3	40	11	28	1	40
	12.5%	80.0%	7.5%	100%	27.5%	70.0%	2.5%	100%
Kanyonyo Basic	11	8	1	20	7	11	2	20
	55.0%	40.0%	5.0%	100%	35.0%	55.0%	10.0%	100%
Mulamatila Basic	6	34	2	42	1	36	1	38
	14.3%	81.0%	4.8%	100%	2.6%	94.7%	2.6%	99%

Figure 5: Effects of Social Interaction by School / Mainstream Pupils' Positive and Negative Attitudes towards Pupils in the Units

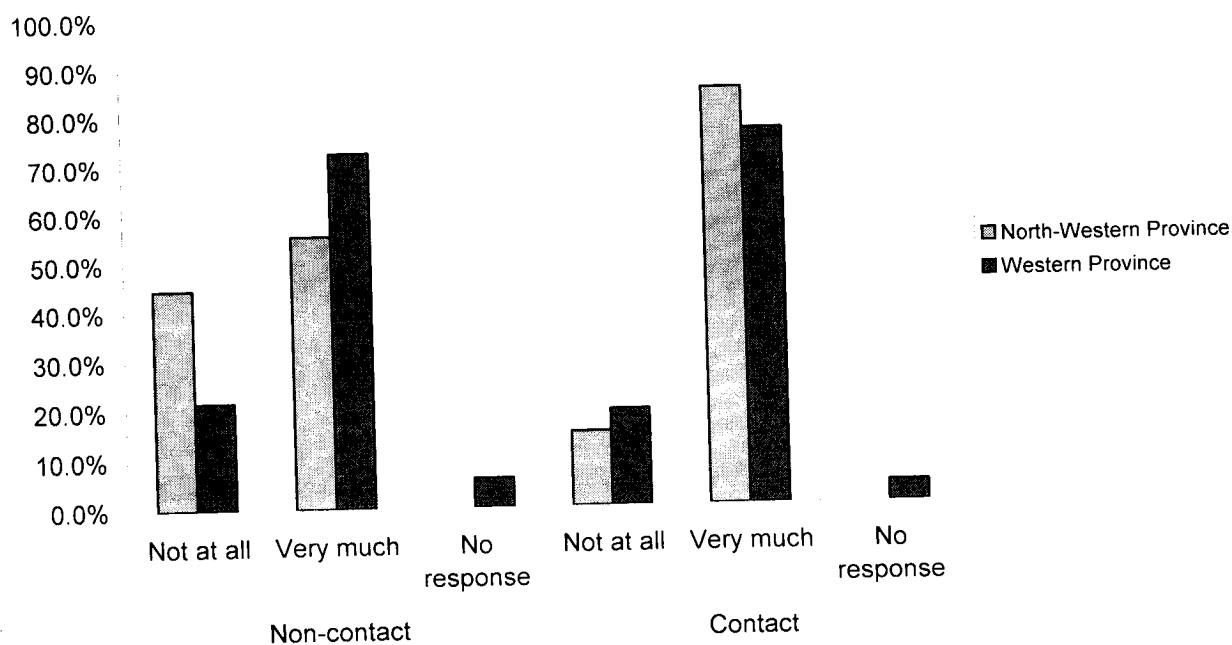


The effects of social interaction on attitudes of peer tutors and non peer tutors towards unit pupils are depicted in Figure 6 and Table 27. Pupils who were peer tutors to pupils in the unit had significantly more positive attitudes than pupils who were not in contact. This picture was the same for all the six schools. There were less 'negative' attitudes (not at all) and more 'positive' attitudes from the peer tutor group than from the non-peer tutor group.

Table 28: Effects of Social Interaction by Province / Mainstream Pupils' Positive and Negative Attitudes towards Pupils in the Units

Name of Province	Non-peer tutor				Peer tutor			
	Negative	Positive	No response	Total	Negative	Positive	No response	Total
North-Western	45	56	-	101	15	85	-	100
	44.6%	55.4%	-	100.0%	15.0%	85.0%	-	100.0%
Western	22	74	6	102	19	75	4	98
	21.6%	72.5%	5.9%	100.0%	19.4%	76.5%	4.1%	100.0%

Figure 6: Effects of Social Interaction by Province / Mainstream Pupils' Positive and Negative Attitudes towards Pupils in the Units



The effects of peer tutor social interaction with unit pupils are depicted in Table 27 and Figure 6. Among the non peer tutor pupils 21.6% and 44.6% in Western and North-Western provinces respectively showed negative attitudes compared to 19.4% and 15% of peer tutor pupils of North-Western and Western provinces respectively.

An overwhelming 76.5% and 85% of peer tutor pupils in Western and North-Western provinces respectively showed positive attitudes. Less positive attitudes were recorded among the non peer tutor group (55.4 and 72.5%) in North-Western and Western provinces respectively). There were more negative attitudes among the non peer tutor pupils in North-Western than in Western province. Among the peer tutor groups there were slightly less negative attitudes in North-Western province as compared to the non-peer tutor group. Peer tutor activities made the greatest gains in North-Western province than in Western province.

Table 29: Mainstream Pupils' Positive and Negative Attitudes towards Pupils in the Unit/ Effects of Social Interaction by Gender

	NON PEER TUTOR						PEER TUTOR					
	Negative			Positive			Negative			Positive		
	M	F	Total	M	F	Total	M	F	Total	M	F	Total
Chileng'a	10	7	17	6	9	15	0	2	2	11	8	19
Kikombe	2	9	11	17	12	29	2	3	5	14	20	34
Chiweza	8	9	18	5	7	12	5	3	8	18	14	32
Kalabo	2	3	5	18	14	32	4	7	11	14	14	28
Kanyonyo	10	1	11	8	0	8	0	7	7	0	11	11
Mulamatala	2	4	6	19	15	34	1	0	1	16	20	36

The attitudes towards unit pupils by each group of mainstream pupils are depicted in Table 28. Boys in a general way had initially more negative attitudes towards unit pupils than girls. Girls had more accepting attitudes than boys. However, boys developed more positive attitudes when they were given the opportunity to interact with unit pupils. Peer tutoring improved the attitudes of boys but had little effect on girls' attitudes. It is also interesting to note that 35% of the males in the peer tutor group indicated very positive attitudes towards pupils in the unit peers, while none in the non peer tutor group did so. In fact none of the males in the peer tutor group indicated negative attitudes towards their special unit peers, while 15% indicated very negative attitudes and 45% indicated negative attitudes in the non peer tutor group. Concerning the females,

the non peer tutor females indicated on average slightly more positive attitude than the peer tutor females. However, this difference was not significant. All the girls in the two groups indicated positive attitudes towards their peers in the unit.

6.4.2 Unit Pupils' Perceptions of Integration and the Social Interaction Intervention.

The questionnaire was administered after the pupils were in social interaction with their mainstream peers who acted as their peer tutors. As Table 29 shows, 100% of the pupils stated that they liked coming to the schools while 38.5% indicated that they would rather attend a special school. As a result of the social interaction intervention, 69.2% of the pupils stated that made friends with the peer tutors and 100% wanted the peer tutors to continue playing with them and they wanted every mainstream pupil in the school to become a peer tutor.

Table 30: Unit Pupils' Perceptions of the Social interaction Intervention

		Frequency	Percent
Do you like coming to this school?	Yes	39	100.0
	Total	39	100.0
Do you think it would be better if you went to a special school?	Yes	15	38.5
	No	22	56.4
	Not sure	2	5.1
	Total	39	100.0
Do you want peer tutors to continue playing with you?	Yes	30	76.9
	No	6	15.3
	Not sure	1	2.6
	No response	2	5.2
	Total	39	100.0
Did you make friends with peer tutors?	Yes	27	69.2

	No	10	25.6
	Not sure	2	5.2
	Total	39	100.0
Do you want every pupil at this school to be a peer tutor?	Yes	39	100.0
	Total	39	100.0

6.4.3 Special Education Teachers' Perceptions of the Social Interaction among Unit Pupils and among them and their Mainstream Peers.

A total of 15 teachers were interviewed after the social interaction intervention was implemented. Their years of service ranged from three months to 22 years. There were seven males and eight females. They held Certificate (10) and Diploma (five) special education qualifications.

Table 30 shows that 53.3% against 40% of the teachers, stated that it was easy to implement the social interaction intervention in their schools and that they thought that the intervention positively changed the attitudes of the mainstream pupils and teachers towards unit pupils. After observing the intervention results, 60% of the teachers thought that it would be ideal for pupils to be maintained in the unit. On the effectiveness of the intervention, 66.6% stated that unit pupils decreased negative social interactions among themselves as a result of the intervention while 60% stated that the intervention had increased the social interaction among unit pupils and their mainstream peers. Asked as to whether they thought the intervention should involve the whole school, 80% recommended that the intervention should spread to the whole school.

Table 31: Special Education Teachers' Perceptions of the Social Interaction among Unit Pupils and among them and their Mainstream Peers.

		Frequency	Percent
Was the social interaction intervention easy to implement at your school?	Yes	8	53.3
	No	6	40.0
	Uncertain	1	7.6
	Total	15	100.0
What was the attitude of mainstream pupils and teachers towards unit pupils after the intervention?	Negative	6	40.0
	Positive	8	53.3
	Uncertain	1	6.7
	Total	15	100.0
After seeing the effects of the social interaction intervention, do you think that unit pupils should be integrated into mainstream or sent to special schools or maintained in unit?	Integrated	3	20.0
	Special school	3	20.0
	In units	9	60.0
	Total	15	100.0
Do you think that the unit pupils decreased negative social interaction among the unit pupils as a result of the intervention?	Yes	10	66.6
	No	2	13.3
	Uncertain	3	20.0
	Total	15	100.0 ^b
Did the intervention increase social interaction between unit pupils and their mainstream peers?	Yes	9	60.0
	No	3	20.0
	Uncertain	3	20.0
	Total	15	100.0
Did you think that the intervention should involve the whole school?	Yes	12	80.0
	No	1	6.6
	Uncertain	2	13.3
	Total	15	100.0

6.4.4 Mainstream Teachers' Perceptions of the Social Interaction among Unit Pupils and among them and their Mainstream Peers.

A total of 37 mainstream teachers (11 male/ 26 female) were interviewed at the end of the social interaction intervention. Their highest qualifications ranged from

Primary Teachers Certificate (20), Diploma (4) and no response (7). Their years of service ranged from 2 – 22 years.

As Table 31 shows, 48.6% against 43.2% of the teachers thought that the social interaction intervention was easy to implement. Asked as to whether mainstream pupils and teachers' attitudes towards unit pupils had changed after the intervention, 75.7% indicated that they noted positive changes in attitudes to the extent that 78.4% of them wanted the unit pupils to be maintained in the unit as opposed to moving them elsewhere. As to whether the intervention decreased negative social interaction amongst unit pupils, 54.1% indicated that it did while 40.5% were not sure. However, 78.4% were categorical in stating that the intervention increased the social interaction between unit pupils and their mainstream peers to the extent that an overwhelming 86.5% of them recommended that the intervention should spread to the whole school.

Table 32: Mainstream teachers' perceptions of the social interaction among unit pupils and between them and their mainstream peers.

		Frequency	Percent
Was the social interaction intervention easy to implement at your school?	Yes	18	48.6
	No	16	43.2
	Uncertain	3	8.1
	Total	37	100.0
What was the attitude of mainstream pupils and teachers towards unit pupils after the intervention?	Negative	6	16.2
	Positive	28	75.7
	Uncertain	3	8.1
	Total	37	100.0
After seeing the effects of the social interaction intervention, do you think that unit pupils should be integrated into mainstream or sent to special schools or maintained in unit?	Integrated	5	13.5
	Special school	3	8.1
	In units	29	78.4
	Total	37	100.0
Do you think that the unit pupils decreased negative social interaction among the unit	Yes	20	54.1
	No	2	5.4

pupils as a result of the intervention?	Uncertain	15	40.5
	Total	37	100.0b
Did the intervention increase social interaction between unit pupils and their mainstream peers?	Yes	29	78.4
	No	5	13.5
	Uncertain	3	8.1
	Total	37	100.0
Did you think that the intervention should involve the whole school?	Yes	32	86.5
	No	3	8.1
	Uncertain	2	5.4
	Total	37	100.0

6.4.5 Head Teachers' perceptions of the social interaction among unit pupils and between them and their mainstream peers.

A total of six Head teachers (5 males/ 1 female) were interviewed at the end of the social interaction intervention. Their teaching service ranged from 18-22 years. Their highest qualifications were diploma (5) and degree (1). Of the six, four were in the post for 10 – 12 years and two for 2 – 3 years.

As Table 31 shows, 83.3% of the Head teachers found the social interaction intervention easy to implement at their schools and 66.6% thought that the intervention had changed mainstream pupils and teachers' attitudes towards unit pupils for the better. Head teachers were evenly divided on the question whether unit pupils should be kept in the unit or integrated into the mainstream classrooms. Asked whether unit pupils decreased negative social interactions amongst themselves, 66.6% as against 33.3%, stated that they had. All the Head teachers were unanimous in stating that the intervention increased social interaction between unit pupils and their mainstream peers. They all recommended that the intervention should spread to the whole school.

Table 31: Head teachers' perceptions of social interactions between unit pupils and their mainstream peers.

		Frequency	Percent
Was the social interaction intervention easy to implement at your school?	Yes	5	83.3
	No	0	0.0
	Uncertain	1	16.6
	Total	6	100.0
What was the attitude of mainstream pupils and teachers towards unit pupils after the intervention?	Negative	1	16.6
	Positive	4	66.6
	Uncertain	1	16.6
	Total	6	100.0
After seeing the effects of the social interaction intervention, do you think that unit pupils should be integrated into mainstream or sent to special schools or maintained in unit?	Integrated	3	50.0
	Special school	0	0.0
	In units	3	50.0
	Total	6	100.0
Do you think that the unit pupils decreased negative social interaction among the unit pupils as a result of the intervention?	Yes	4	66.6
	No	2	33.3
	Uncertain	0	0.0
	Total	6	100.0
Did the intervention increase social interaction between unit pupils and their mainstream peers?	Yes	6	100.0
	No	0	0.0
	Uncertain	0	0.0
	Total	6	100.0
Did you think that the intervention should involve the whole school?	Yes	6	100.0
	No	0	0.0
	Uncertain	0	0.0
	Total	6	100.0

6.5 Conclusion

The findings show that the peer tutor group that had engaged in interaction on a daily basis showed significantly more positive attitudes towards pupils in the unit than the comparable group of mainstream pupils who had not engaged in such regular interaction. The findings also show that special unit teachers, mainstream teachers and Head teachers found the peer tutoring intervention a useful tool in increasing social interaction among pupils in the unit and between them and their mainstream peers. They all recommended that it be spread to the whole school.

6.5 Summary

In chapter six, the effectiveness of peer tutoring to enhance social interaction among pupils with intellectual disabilities and among them and their mainstream peers was investigated. Using the ABAB single-subject design, results indicated that peer tutoring resulted in:

- Increases in unit pupils' duration of positive interactions (up to 86%);
- Significant differences in the attitudes of peer tutors and a comparable group of mainstream pupils who had not been in contact with unit pupils.
- High satisfaction ratings from both teachers and Head teachers.

The next chapter discusses the findings reported in this chapter. Based on the findings the next chapter will also make conclusions and recommendations.

CHAPTER SEVEN

DISCUSSION OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

7.0 General

The previous chapter presented the findings on patterns of social interaction amongst pupils in the unit and between them and their mainstream peers in the six study areas of Western and Northwestern provinces . This exercise was done in order to provide answers to the research questions raised in Chapter One of the study

The purpose of the present study was to establish whether or not the peer tutor programme as an intervention increased social interaction amongst pupils in the unit and between them and their mainstream peers. Based on the findings reported in the previous chapter, the present chapter seeks to provide answers to this question by summarizing and explaining the patterns of social interaction amongst pupils in the unit and between them and their mainstream peers. The presentation is divided into two sections. The first section focuses on the peer tutor intervention. The second focuses on the changes in the attitudes of two groups of mainstream pupils towards pupils in the unit after a period of social interaction and non interaction respectively. It also deals with perceptions of the peer tutoring social interaction intervention of various stakeholders at school level. The chapter also draws conclusions and presents some recommendations for promoting social interaction between pupils in the unit and their mainstream peers as well as areas requiring further research.

7.1 Discussion of Findings

7.1.0 General

This section of the report provides a discussion of the findings and relates them to the integration theory and practice. The section is divided into two sub-sections. The first discusses the findings on the peer tutor intervention's effectiveness on the social interaction amongst pupils in the unit and between

them and their mainstream peers. The second focuses on the differences in attitudes towards pupils in the unit between a group of mainstream pupils who had interacted with the pupils in the unit as peer tutors and another group of mainstream pupils who had no interaction with pupils in the unit. In addition it discusses the perception of mainstream teachers, head teachers and special education teachers of the social interaction among pupils in units and between them and their mainstream peers.

7.1.1 The effectiveness of the peer tutor intervention programme

7.1.1.0 General

This sub-section of the report summarizes and discusses the findings on the effectiveness of the peer tutor intervention programme on the social interaction both within pupils in the units and between them and their mainstream peers. From the discussion, implications are drawn and specific recommendations made.

7.1.1.1 Summary of the findings

Results indicate gradual increases in the social interaction of pupils in the unit across phases in both the experimental and natural situations. Increases in interactions among pupils in the unit and between them and their mainstream peers were especially positive. The most distinct changes occurred in phase 3 when peer tutors introduced play skills training and used prompting to pupils in the units. Increases were recorded in both experimental and natural situations.

With the introduction of peer tutors in phase 2, unit pupils increased their interaction with their mainstream peers. Interaction was maintained on a high level in the 1-month follow-up. Additionally, significant simultaneous increases were registered in the natural situation. It was found that Increases were maintained in this situation at 1-month follow-up.

7.1.1.2 Implications of the findings

In relation to the purpose of the present study, the findings seem to suggest that peer tutoring as an intervention programme to promote social interaction among pupils in the unit and between them and their mainstream peers is an efficient and economic way of promoting social interaction.

Since 1990, a debate has simmered over how best to reform special education services for 'full inclusion'. Physical integration can be the first step towards realizing the concept of full inclusion for children with disabilities (Skinner, 1996). This study has however shown that unless appropriate programmes are used for both children with disabilities and typically developing children, qualitatively effective social interaction, including friendship between them, might not develop. The peer tutor programme can be thought of as "software" necessary to make proper use of the "hardware" of physical integration. The findings from this study are expected to contribute to strategies that may be applied to facilitate full inclusion for children in special units.

The present study revealed that many pupils with intellectual disabilities have limited interactions with peers when they play together. Pupils with disabilities meet a variety of obstacles to effective communicative interaction with others due to their cognitive problems. Also, some pupils with disabilities require special methods to interact or communicate with others. If mainstream pupils do not know what kinds of difficulties the children with disabilities have and how they express themselves and interact with others, social interactions between unit pupils and their mainstream peers may not occur.

There may be many more opportunities and possibilities of maintaining social interaction between unit pupils and their mainstream peers, if mainstream pupils support and encourage unit pupils in their play activities. Barriers between the two groups of pupils can be broken down by the support and encouragement

from mainstream pupils in play. Simultaneously, the new relationship called 'friendship' may be formed through the activities between them.

The peer tutor programme developed in the present research has shown that it could provide benefits not only to children with intellectual disabilities and play partners without disabilities but also to teachers. While children with intellectual disabilities and typically developing children played together, special education teachers utilized their time for other tasks.

It can be argued that one reason peer tutoring worked may be that tutors and tutees spoke a more similar language than do teachers. As Damon and Phelps put it,

Unlike adult-child instruction, in peer tutoring the expert Party is not far removed from the novice party in authority Or knowledge; nor has the expert party any special claims to instructional competence. Such differences affect the nature of discourse between tutor and tutee, because they place the tutee in a less passive role than does the adult/child instructional relation. Being closer in knowledge and status, the tutee in a peer relation feels freer to express opinions, ask questions, risk untested solutions. The interaction between instructor and pupil is more balanced and more lively. This is why conversations between peer tutors and their tutees are high in mutuality even though the relationship is not exactly equal in status. (1998a, p. 138)

However, for the intervention to work as well as it did in the present study, six conditions have been identified which may be needed for effectively transmitting knowledge through peer tutoring: (1) The tutor must provide relevant help which is (2) appropriately elaborated, (3) timely, and (4) understandable to the target pupil; (5) the tutor must provide an opportunity for the tutee to use the new

information; and (6) the tutee must take advantage of that opportunity (Webb 1989, p. 24).

The results of the study have confirmed the conclusion made by Staub and Hunt (1993) that trained tutors had a significantly higher success with tutees than a control group of tutors who were not trained. The need for trained tutors clearly emerged in the present study.

7.1.1.3 Recommendations

In view of the significant increases in social interaction the intervention programme registered in the study, it is recommended that the Ministry of Education should:

- (a) Ensure that any school that wants to introduce the social interaction intervention programme works out elaborate procedures that will guide it in executing the intervention.
- (b) Ensure that the school peer tutor programme management ought to ensure that parents and significant others in the unit pupil's environment should be informed of the social skills being inculcated. At a minimum, parents and others must be told how the unit pupils may be expected to behave in certain kinds of situations in the future and how they can encourage the use of the newly earned social skills. Such communication will prevent the unit pupils from being punished for acting differently as was the case in the past and may promote reinforcement for social skill use in the natural environment. Research (e.g. Carter and Sugai, 1989) has shown that children with disabilities learned and maintained their use of the skills at post-training levels longer than children whose parents were not involved in the training.

7.1.2 The differences in attitudes towards unit pupils between peer tutors and a comparable group of mainstream pupils who had no social interaction with unit pupils and teachers' perceptions of the social interaction intervention.

7.1.2.0 General

The main objective of the study was to examine whether attitudes of mainstream pupils towards their unit peers would be modified by regular contact with the unit pupils who have intellectual disabilities. In addition the study was to examine the perceptions of teachers and head teachers of the social interaction intervention that was used to increase social interaction among unit pupils and between them and their mainstream peers. The results indicate that mainstream pupils, who had been in contact with unit pupils as peer tutors, had more positive attitudes than mainstream pupils who had no direct contact. The results also show that the intervention received high satisfaction ratings from both teachers and head teachers.

7.1.2.1 Summary of findings

The main findings emerging from this study show that the mainstream pupils who had been in contact as peer tutors with unit pupils had more positive attitudes towards their unit peers than a comparable group of mainstream pupils who had no direct contact. Out of these mainstream pupils (both peer tutors and non peer tutors), boys who had been in social interaction had more positive attitudes than boys who had not been while no significant exposure effects were observed amongst girls. Among mainstream pupils who had no social interaction with unit pupils, girls had more positive attitudes than boys.

Another significant finding that emerged from this study is that special education teachers, mainstream teachers and head teachers found the social interaction intervention easy to implement at their schools and they thought that the

intervention had changed mainstream pupils and teachers' attitudes towards unit pupils for the better. They also decided that with this intervention in place, unit pupils could be maintained in units rather than being sent to special schools. They were unanimous that the intervention decreased unit pupils' negative social interactions amongst themselves and that the intervention increased social interaction between unit pupils and their mainstream peers. They all recommended that the intervention should spread to include all pupils in the schools.

7.1.2.2 Implications of the findings

What is clearly indicated from the findings of the present study is that attitudes may be modified by regular contact with unit pupils. Mere placement of such children in units within integrated settings may not necessarily lead to elevated social acceptance of these children, unless deliberate efforts are made to ensure that they are in actual contact with mainstream pupils other than merely being in the same school. But whether changes in attitudes by mainstream pupils (specifically boys) is a result of observed changes in the behaviour of pupils with disabilities is one possibility that further research can specifically examine. In addition, the finding that girls who were in contact with peers with disabilities may in fact not have developed any more positive attitudes also needs further investigation.

Of the pupils in contact, the results indicate that boys who had been in contact with unit pupils had more positive attitudes than boys who had no direct contact, while no such noticeable effects were observed among girls. Among the mainstream pupils who had no contact with unit pupils, girls had more positive attitudes than boys. The treatment effects for boys, though not for girls, were consistent with earlier findings by Newberry and Parish (1987).

These findings indicate that boys in general may initially have more negative attitudes towards unit peers than girls. This is consistent with data from the USA

and other industrialized countries where studies have documented significant sex differences with girls having more accepting attitudes than boys (Rothlisberg, Hill, & Damato, 1994; Townsend et al., 1993; Voeltz, 1980; 1982). The findings also suggest that boys can develop more positive attitudes when given the opportunity to interact with peers with disabilities. However, while contact may serve to improve the attitudes of boys, this seems to have little effect on girls' attitudes and may even lead to positive attitudes being eroded.

The view that exposure of mainstream pupils to behavioural characteristics of unit pupils would increase social isolation of the latter (Gottlieb, 1981), was not supported by our findings, at least not for the boys. Had that been the case, the 'in contact' pupils should have had more negative attitudes than the 'Not in Contact' group.

One could, however, argue that the contact condition was confounded with the social skills training of the unit pupils. Specifically, that the assignment of some of the unit pupils as special friends makes it unclear as to whether the observed effects were due to simple exposure or to being part of the special friends' intervention.

The specific effects of contact through social interaction relative to participation in the interventions on the attitudes of the 'in contact' pupils may not be apparent from these findings. It could be argued that attitudinal changes on the part of one group may have arisen from being part of the special friends programme or from a heightened awareness of the demand characteristics of the questionnaire for the same group, again arising from the special friends programme. However, the fact that not all the mainstream pupils in the in contact were actually special friends makes this unlikely. Had this been the case, there should have been a wider variation in attitudes within the 'in contact group' itself, with those children participating as special friends scoring significantly higher than the others. Clearly, attitudes were more homogeneous in the former group than the latter.

If initial negative attitudes by mainstream pupils towards unit pupils are based on inappropriate behaviours by the latter perceived by the former, modified behaviours due to social skills training could be associated with changes in acceptance of these children. However, the relatively negative attitudes of those mainstream pupils not in contact to unit pupils indicate prior negative expectations and not observed behaviour as such, because this group of pupils had not been involved in direct social interaction. Support for such a hypothesis would need to show that the attitudes of the exposed mainstream pupils towards peers with disabilities became less accepting on initial contact and then improved as a result of behavioural changes in children with disabilities due to intervention. This can clearly not be ascertained from this study.

7.1.2.3 Participants' comments and suggestions

In view of the significant increases in the social interaction among unit pupils and between them and their mainstream peers that the social interaction intervention registered as discussed above, special education teachers, mainstream teachers, and head teachers expressed their satisfaction with the results of the study. They welcomed the intervention because it enables mainstream pupils to become aware of the differences, but the positive attributes, competences, and commonalities of their peers with disabilities. They thought that peer tutoring deserved consideration as a way to accomplish this goal.

They expressed the view that teachers rarely received training in how to promote social interactions between pupils and that teacher – involvement had been shown to hamper or terminate pupil interactions. They would want a well-structured peer-tutoring programme, which provided them with a tutor-training format, a means of shaping and monitoring pupil interactions with a minimum of involvement, and by establishing tutor-tutee interactions patterns. They are agreed that interventions, which are designed to foster social behaviours in children with disabilities, must target behaviours that will promote the reciprocity

of social interactions, both on the part of the subject pupils, and on the part of their peers. They concluded that structured and well-run peer tutoring programmes could do this successfully.

They expressed the view that teachers need to recognize that peer tutoring was not an 'add on' programme. Instead, it is supposed to be seen as an instructional methodology that is consistent with most teacher goals. As has been demonstrated in the study, it provides the opportunity for pupils with disabilities to become active learners and offers a functional way for pupils to socially interact. Teachers could manage a tutoring programme in the same way they manage other small-group activities in the school. In fact, given the structured nature of tutoring programmes, pupil management concerns are reduced.

Some teachers were at first opposed to peer tutoring on philosophical grounds, believing that all instruction should be delivered directly by them. Although some teachers were skeptical at first, given the overwhelming data demonstrating the effectiveness of the peer tutoring programme in the study, even the most hesitant teacher conceded the programme's efficacy.

7.1.2.4 Recommendations

In view of the significant increases in the social interaction among unit pupils and between them and their mainstream peers that the social interaction intervention registered as discussed above, and the comments and suggestions made by special education teachers, mainstream teachers, and head teachers, it is recommended that the Ministry of education should ensure that:

- (i) classroom teachers are cognizant of the methods and benefits of peer tutoring and the importance of extending the methods to more pupils in their classrooms. An important extension of this research will be to examine the feasibility of transferring all instructional training responsibilities to classroom teachers.

- (ii) School managements find out the professional development implications of introducing peer tutoring in their schools. teachers could also consider the benefit from practicing the peer tutoring skills between themselves before introducing peer tutoring to their pupils.

7.2 Conclusion

Through a careful analysis of the social interaction patterns among unit pupils and between them and their mainstream peers, the peer tutor intervention used in this study has demonstrated in a very short period the ease with which attitudes can change provided guidelines are established. Considerable success was achieved. A significant increase in the amount of associative and co-operative play by unit pupils and their mainstream peers who were in social interaction with them was recorded. So too, was a decrease in unit pupils behaviour that would be defined socially inappropriate recorded. There was also a decrease in the proportion of interactions that the unit pupils had with each other. The study provides a case to be made for teachers to make more explicit intervention than is the norm in order to promote social interaction between pupils in units and their mainstream peers. This is in addition to the many indirect steps that can be taken in the way of removing obstacles and constraints and ensuring that the school's everyday organization does not contribute to the isolation of pupils with special needs.

The study has established that as a result of the social interaction intervention there was a large and significant difference in positive attitudes between peer tutors who had social interaction with unit pupils on a daily basis and a group of mainstream pupils who had not done so. However, differences between the boys in these two groups (peer tutors and non peer tutors) contributed to this difference. One interpretation of these differences could be that boys have in general significant more negative attitudes than girls in the Zambian society. This finding constitutes a significant contribution to knowledge on attitudes because such an interpretation compares well with data from the USA and other western

countries where studies have documented that there are significant sex differences with females having more accepting attitudes than males (Voeltz, 1980; 1982). From the above findings of the study, it can be concluded pupils who have had social interaction with unit pupils had more positive attitudes towards them than those who had no social interaction. This indicates that negative attitudes may be modified by daily exposure with unit pupils.

This study has made a specific contribution to the understanding of children's peer relations. The case for children's peer relations has been made repeatedly and conclusively in developmental theory and research. Repeated studies have shown that peer interaction is conducive, perhaps even essential, to a host of important early achievements. These include children's understanding of fairness, their self-esteem, their proclivities toward sharing and kindness, their mastery of symbolic expression, their acquisition of role-taking and communication skills, and their development of creative and critical thinking.

The study has shown that the major stakeholders in a school are welcoming the social interaction intervention in their schools. This has been evidenced in the positive ratings the intervention given to it by special education teachers, mainstream teachers and head teachers. They reported that the intervention had been successful in increasing social interaction of unit pupils and their mainstream peers. In fact, they recommended that the intervention be extended to all mainstream pupils because they observed that it changed pupils' and teachers attitudes towards unit pupils.

Finally, this study has indicated some positive outcomes of having special units in mainstream schools when applied with social interaction intervention for pupils with disabilities. Specifically, the findings suggest that peer attitudes towards unit pupils, especially with regard to boys, can be improved through structured exposure to them. However, while these findings indicate some consistency with those from other cultures (Newberry and Parish, 1987; Townsend et al., 1993;

Voeltz, 1982), they should be regarded as essentially preliminary and exploratory as they only provide a base for further research.

7.3 Recommendations

7.3.0 General

In view of the findings and conclusion drawn, this study makes two sets of recommendations. The first set relates to the social interaction intervention policy formulation in which we recommend the formulation of a whole school policy aimed at promoting social interaction between unit pupils and their mainstream peers. The second set relates to recommendations for further research in which we identify specific areas requiring further research.

7.3.1 Recommendations for policy development

This study recommends to the Ministry of Education the formulation of comprehensive guidelines that will guide schools which host special units for pupils with intellectual disabilities to promote social interaction between unit pupils and their mainstream peers. The guidelines which should be incorporated into the school policy must provide each of the following key elements for the success the social interaction intervention programme:

- Procedures must be established for selecting peer tutors and unit pupils.
- Peer tutors require structured training to learn and reinforce key skill sets.
- Peer tutors require ongoing supervision and support.
- Peer tutors must learn from each others' experiences as well as from the teachers.
- Support from teachers, school managers and the community is essential for a tutoring programme to succeed and be sustained.
- Tutors must meet unit pupils in a structured and scheduled environment.

- Programmes must conduct formal evaluations.
- Programmes must document success in order to be sustained.

7.3.2 Recommendations for further research

Every piece of research clarifies certain issues and, in the process, raises others such that no study can claim to be exhaustive. The present study is no exception. It has merely touched the surface of some of the issues it has raised. Such issues, which need to be explored, further are:

- (i) effects of intervention relative to mere contact, the effects of the nature of social interaction, and also gender differences in these effects;
- (ii) the attitudes questionnaire requires extensive validation for cross-cultural comparison;
- (iii) the role of transferring responsibility of social skills training from teacher-controlled procedures to peer-controlled and generated procedures warrants further investigation; and
- (iv) the use of peers as mediators of social relationships and social support (both in and out of school) is a fast-growing area of research. Those specific variables that influence the effectiveness of peer tutor interventions and the application of such strategies remain to be explored.

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APPENDICES

Appendix 1: Questionnaire on the effects of the social interaction intervention on mainstream pupils' attitudes towards their unit peers in the Unit (English version)

(This questionnaire has 15 questions)

Province: _____ District: _____

School: _____ Pupil's Grade: _____

Pupil's Age: _____ Pupil's Sex: _____

Name of Teacher administering Questionnaire: _____

1. How much would you like to know anyone in that class?

Not at all	A little	Much	Very much
1 []	2 []	3 []	4 []

Comments:

2. Would you like to have friends from that class?

Not at all	A little	Much	Very much
1 []	2 []	3 []	4 []

Comments:

3. How much would you like playing with any of the children from that class?

At school:

Not at all	A little	Much	Very much
1 []	2 []	3 []	4 []

Comments:

At home:

Not at all A little Much Very much
1 [] 2 [] 3 [] 4 []

Comments:

4. Would your teacher like you to play with children from that class?

Not at all A little Much Very much
1 [] 2 [] 3 [] 4 []

Comments:

5. Would your parents like you playing with children from that class?

Not at all A little Much Very much
1 [] 2 [] 3 [] 4 []

Comments:

6. How much would your friends like you to play with children from that class?

Not at all A little Much Very much
1 [] 2 [] 3 [] 4 []

Comments:

7. How much do you think children from that class know how to play?

Not at all A little Much Very much
[] 2 [] 3 [] 4 []

Comments:

8. How much would you welcome a child from the class to be transferred to your class?

Not at all	A little	Much	Very much
1 []	2 []	3 []	4 []

Comments:

9. Do you think there is something wrong with children from that class?

Not at all	A little	Much	Very much
1 []	2 []	3 []	4 []

Comments:

10. How much would you like to have one of those children as your brother or sister?

Not at all	A little	Much	Very much
1 []	2 []	3 []	4 []

Comments:

11. Do you think that children from that class are dull (in class)?

Not at all	A little	Much	Very much
1 []	2 []	3 []	4 []

Comments:

12. How much do you think that class and unit should be in this school?

Not at all	A little	Much	Very much
1 []	2 []	3 []	4 []

Comments:

13. How much do you think children from that class or unit learn as you do?

Not at all	A little	Much	Very much
1 []	2 []	3 []	4 []

Comments:

14. How much would you say you like children from that class or unit?

Not at all	A little	Much	Very much
1 []	2 []	3 []	4 []

Comments:

15. How much would you say there is any benefit from children of that class or unit attending this class?

Not at all	A little	Much	Very much
1 []	2 []	3 []	4 []

Comments:

Appendix 2: Questionnaire on the effects of the social interaction intervention on mainstream pupils' attitudes towards their unit peers in the Unit (Silozi version)

Province: District:

School: Pupil's Grade: Sex: Age:

Name of Teacher administering Questionnaire:

1. U i takaleza kuziba cwani mwanana wa mwa sitopa seo?

Anilati	Hanyinyani	Ahulu	Ahulu hulu
1[]	2[]	3[]	4[]

Maikuto:

2. Kana wa lata ku ba ni balikani mwa sitopa seo?

Anilati	Hanyinyani	Ahulu	Ahulu hulu
1[]	2[]	3[]	4[]

Maikuto:

3. U lata cwani ku bapala ni banana ba mwa sitopa seo?

(a) Kwa sikolo

Anilati	Hanyinyani	Ahulu	Ahulu hulu
1[]	2[]	3[]	4[]

Maikuto:

(b) Kwa hae

Anilati	Hanyinyani	Ahulu	Ahulu hulu
1[]	2[]	3[]	4[]

Maikuto:

4. Kana bo muluti ba hao ba lata kuli u bapale ni banana ba mwa sitopa seo?

Batili	Hanyinyani	Ahulu	Ahulu hulu
1[]	2[]	3[]	4[]

Maikuto:

5. Kana bashemi ba hao ba lata kuli u bapale ni banana ba mwa sitopa seo?

Batili	Hanyinyani	Ahulu	Ahulu hulu
1[]	2[]	3[]	4[]

Maikuto:

6. Kana balikani ba hao ba lata kuli u bapale ni banana ba mwa sitopa seo?

Batili	Hanyinyani	Ahulu	Ahulu hulu
1[]	2[]	3[]	4[]

Maikuto:

7. Kana banana ba sitopa seo ba ziba hande ku bapala?

Batili	Hanyinyani	Ahulu	Ahulu hulu
1[]	2[]	3[]	4[]

Maikuto:

8. Kana wa kona ku amuhela mwanana ku shimbuluka mwa sitopa seo ku taha ku sahao?

Batili	Hanyinyani	Ahulu	Ahulu hulu
1[]	2[]	3[]	4[]

Maikuto:

9. Kana kuna ni se si fosahezi kwa banana ba sitopa seo?

Batili	Hanyinyani	Ahulu	Ahulu hulu
1[]	2[]	3[]	4[]

Maikuto:

10. U lata cwani kuli yo munwi wa banana bao a be muzwale kapa kaizela hao?

Batili	Hanyinyani	Ahulu	Ahulu hulu
1[]	2[]	3[]	4[]

Maikuto:

11. Kana banana ba sitopa seo ki litimbi?

Batili	Hanyinyani	Ahulu	Ahulu hulu
1[]	2[]	3[]	4[]

Maikuto:

12. Kana sitopa seo sa swanela ku ba mwa sikolo se?

Batili	Hanyinyani	Ahulu	Ahulu hulu
1[]	2[]	3[]	4[]

Maikuto:

13. Kana u hupula kuli banana ba sitopa seo ba ituta sina wena?

Batili	Hanyinyani	Ahulu	Ahulu hulu
1[]	2[]	3[]	4[]

Maikuto:

14. Kana u tala cwani banana ba sitopa seo?

A nilati	Hanyinyani	Ahulu	Ahulu hulu
1[]	2[]	3[]	4[]

Maikuto:

15. Kana ku na ni bunde bo bu fumanaha kwa banana bao ha ba kena mwa sitopa seo?

Batili	Hanyinyani	Ahulu	Ahulu hulu
1[]	2[]	3[]	4[]

Maikuto:

Appendix 3: (Questionnaire on the effects of the social interaction intervention on mainstream pupils' attitudes towards their unit peers in the Unit (Luvale version).

Province: District:

School:Pupil's Grade: Sex:Age:

Name of Teacher administering Questionnaire:

1. Kukipimo ka kyoukeeba kuyuuka uji yeense wa muyeewa kalaashi?

Ine mwaane	Pacheeche	Pakataampe	Pakataampe bingi
1[]	2[]	3[]	4[]

Byakwaambapo:

2. Ukeeba kwikaala na baluunda kufuuma muyeewa kalaashi nyi?

Ine mwaane	Pacheeche	Pakataampe	Pakataampe bingi
1[]	2[]	3[]	4[]

Byakwaambapo:

3. Kukipimo ka kyoukeeba kukaya namwanyiike uji yeense ufuuma muyeewa kalaashi?

(a) Pa sukuulu?

Ine mwaane	Pacheeche	Pakataampe	Pakataampe bingi
1[]	2[]	3[]	4[]

Byakwaambapo:

(b) Ku nzuubo?

Ine mwaane	Pacheeche	Pakataampe	Pakataampe bingi
1[]	2[]	3[]	4[]

Byakwaambapo:

4. Bafunjiishi bobbe basaka obewa kukaya na banyiike bafuuma muyeewa kalaashi nyi?

Ine mwaane	Pacheeche	Pakataampe	Pakataampe bingi
1[]	2[]	3[]	4[]

Byakwaambapo:

5. Banseemi boobe basaka obeewa kukaya na banyiike bafuuma muyeewa kalaashi nyi?

Ine mwaane	Pacheeche	Pakataampe	Pakataampe bingi
1[]	2[]	3[]	4[]

Byakwaambapo:

6. Kukipimo ka ako bakweenu kubasaaka obewa kukaya na banyiike kufuuma muyeewa kalaashi?

Ine mwaane	Pacheeche	Pakataampe	Pakataampe bingi
1[]	2[]	3[]	4[]

Byakwaambapo:

7. Mwailla milanguluuko yoobe, kipiimo ka kyakukaaya kyobayuuka baana ba muyeewa kalaashi?

Ine mwaane	Pacheeche	Pakataampe	Pakataampe bingi
1[]	2[]	3[]	4[]

Byakwaambapo:

8. Kukipiimo ka kyo wakoonsa kumuutambulwila mwaana kufuuma muyeewa kalaashi kutuntulwiilwa mu kalaashi woobe?

Ine mwaane	Pacheeche	Pakataampe	Pakataampe bingi
1[]	2[]	3[]	4[]

Byakwaambapo:

9. Mumilanguluuko yoobe, kujipo bimo byalubankane ku baana bamuyeewa kalaashi nyi?

Ine mwaane	Pacheeche	Pakataampe	Pakataampe bingi
1[]	2[]	3[]	4[]

Byakwaambapo:

10. Kukipiimo ka kyousaka umo wamubooba baana kwiikala muloongo obe nangwa nyeenga yobe?

Ine mwaane	Pacheeche	Pakataampe	Pakataampe bingi
1[]	2[]	3[]	4[]

Byakwaambapo:

11. Mukulanguluuka koobe, baana bamuyeewa kalaashi bafwao maana nyi?

Ine mwaane	Pacheeche	Pakataampe	Pakataampe bingi
1[]	2[]	3[]	4[]

Byakwaambapo:

12. Kukipiimo ka kyoulanguluka awa kalaashi ne uniti kwikaala mu uno sukuulu?

Ine mwaane	Pacheeche	Pakataampe	Pakataampe bingi
1[]	2[]	3[]	4[]

Byakwaambapo:

13. Mwaila kipiimo kyamilanguluko yoobe baana ba muyeewa kalaashi nangwa uniti bafuunda byoonka byo ufuunda nyi?

Ine mwaane	Pacheeche	Pakataampe	Pakataampe bingi
1[]	2[]	3[]	4[]

Byakwaambapo:

14. Kukipiimo ka kyowakoonsha kwaamba amba wibateemwa baana ba muyeewa kalaashi nangwa uniti?

Ine mwaane	Pacheeche	Pakataampe	Pakataampe bingi
1[]	2[]	3[]	4[]

Byakwaambapo:

15. Kukipiimo ka kyowankoonsha kwamba amba paji kumwenaamo kuji koonse mukwiiya kwa baana ba muyeewa kalaashi nangwa uniti ku sukuulu?

Ine mwaane	Pacheeche	Pakataampe	Pakataampe bingi
1[]	2[]	3[]	4[]

Byakwaambapo:

Appendix 4: Questionnaire on the effects of the social interaction intervention on mainstream pupils' attitudes towards their unit peers in the Unit (Kii Kaonde version).

(This questionnaire has 15 questions)

Province: District:

School: Pupil's Grade: Sex: Age:

Name of Teacher administering Questionnaire:

1. Kukipimo ka kyoukeeba kuyuuka uji yeense wa muyeewa kalaashi?

Ine mwaane bingi	Pacheeche	Pakataampe	Pakataampe
1[]	2[]	3[]	4[]

Byakwaambapo:

2. Ukeeba kwikaala na baluunda kufuuma muyeewa kalaashi nyi?

Ine mwaane	Pacheeche	Pakataampe	Pakataampe bingi
1[]	2[]	3[]	4[]

Byakwaambapo:

3. Kukipimo ka kyoukeeba kukaya namwanyiike uji yeense ufuuma muyeewa kalaashi?

(a) Pa sukuulu?

Ine mwaane	Pacheeche	Pakataampe	Pakataampe bingi
1[]	2[]	3[]	4[]

Byakwaambapo:

(b) Ku nzuubo?

Ine mwaane	Pacheeche	Pakataampe	Pakataampe bingi
1[]	2[]	3[]	4[]

Byakwaambapo:

4. Bafunjiishi bobbe basaka obewa kukaya na banyiike bafuuma muyeewa kalaashi nyi?

Ine mwaane	Pacheeche	Pakataampe	Pakataampe bingi
1[]	2[]	3[]	4[]

Byakwaambapo:

5. Banseemi boobe basaka obeewa kukaya na banyiike bafuuma muyeewa kalaashi nyi?

Ine mwaane	Pacheeche	Pakataampe	Pakataampe bingi
1[]	2[]	3[]	4[]

Byakwaambapo:

6. Kukipimo ka ako bakweenu kubasaaka obewa kukaya na banyiike kufuuma muyeewa kalaashi?

Ine mwaane	Pacheeche	Pakataampe	Pakataampe bingi
1[]	2[]	3[]	4[]

Byakwaambapo:

7. Mwaila milanguluuko yoobe, kipiimo ka kyakukaaya kyobayuuka baana ba muyeewa kalaashi?

Ine mwaane	Pacheeche	Pakataampe	Pakataampe bingi
1[]	2[]	3[]	4[]

Byakwaambapo:

8. Kukipiimo ka kyo wakoonsa kumuutambulwila mwaana kufuuma muyeewa kalaashi kutuntulwiilwa mu kalaashi woobe?

Ine mwaane	Pacheeche	Pakataampe	Pakataampe bingi
1[]	2[]	3[]	4[]

Byakwaambapo:

9. Mumilanguluuko yoobe, kujipo bimo byalubankane ku baana bamuyeewa kalaashi nyi?

Ine mwaane Pacheeche Pakataampe Pakataampe bingi
1[] 2[] 3[] 4[]

Byakwaambapo:

10. Kukipiimo ka kyousaka umo wamubooba baana kwiikala muloongo obe nangwa nyeenga yobe?

Ine mwaane Pacheeche Pakataampe Pakataampe bingi
1[] 2[] 3[] 4[]

Byakwaambapo:

11. Mukulanguluuka koobe, baana bamuyeewa kalaashi bafwao maana nyi?

Ine mwaane Pacheeche Pakataampe Pakataampe bingi
1[] 2[] 3[] 4[]

Byakwaambapo:

12. Kukipiimo ka kyoulanguluka awa kalaashi ne uniti kwikaala mu uno sukuulu?

Ine mwaane Pacheeche Pakataampe Pakataampe bingi
1[] 2[] 3[] 4[]

Byakwaambapo:

13. Mwaila kipiimo kyamilanguluko yoobe baana ba muyeewa kalaashi nangwa uniti bafuunda byoonka byo ufuunda nyi?

Ine mwaane Pacheeche Pakataampe Pakataampe bingi
1[] 2[] 3[] 4[]

Byakwaambapo:

14. Kukipiimo ka kyowakoonsha kwaamba amba wibateemwa baana ba muyeewa kalaashi nangwa uniti?

Ine mwaane Pacheeche Pakataampe Pakataampe bingi
1[] 2[] 3[] 4[]

Byakwaambapo:

15. Kukipiimo ka kyowankoonsha kwamba amba paji kumwenaamo kuji koonse mukwiiya kwa baana ba muyeewa kalaashi nangwa uniti ku sukuulu?

Ine mwaane
1[]

Pacheeche
2[]

Pakataampe
3[]

Pakataampe bingi
4[]

Byakwaambapo:

Appendix 5: Guided Interview Questions - Unit Pupils' Perceptions of Integration and the Intervention Programme

Province:.....District:.....School:.....

Pupil's Initials.....Grade/Level.....Age:.....Sex.....

1. Do you have friends in the mainstream classes?
2. Are all your friends from the Unit?
3. Do you like coming to this school?
4. Do you think it would be better if you went to a special school?
5. Are you ever bullied or teased at school because of your disability?
6. Do you find other pupils kind and helpful to you?
7. Do you want peer tutors to continue playing with you?
8. Did you make friends with peer tutors?
9. Do you want every pupil at this school to be a peer tutor?

Appendix 6: Guided Interview Questions – Special education teachers' perceptions of the social interaction intervention programme.

Province:.....District:.....School:.....

Teachers initials:Grade handling.....

Years of service:..... Sex.....

Special Ed. Qualification/College/year obtained:.....

1. Before the social interaction intervention were unit pupils socially interacting with mainstream pupils?
2. Have you ever seen Unit pupils being teased or bullied by other pupil?
3. Would you like to have Unit pupils in your class?
4. Was the social interaction intervention easy to implement at your school?
5. What was the attitude of mainstream pupils and teachers towards unit pupils after the intervention?
6. After seeing the effects of the intervention, do you think that unit pupils should be integrated into the mainstream or sent to special schools or maintained in the unit?
7. Do you think that the unit pupils decreased negative social interaction among themselves as a result of the intervention?
8. Did the intervention increase social interaction between unit pupils and their mainstream peers?
9. Do you think that the intervention should now spread to the whole school?

Appendix 7: Guided Interview Questions - Mainstream teachers' Perceptions of the Social Interaction Intervention Programme.

Province:.....District:.....School:.....

Teachers initials:.....Grade handling Years of service

Sex.....

Highest Qualification/year obtained:.....

1. Before the social interaction intervention were unit pupils socially interacting with mainstream pupils?
2. Have you ever seen Unit pupils being teased or bullied by other pupil?
3. Would you like to have Unit pupils in your class?
4. Was the social interaction intervention easy to implement at your school?
5. What was the attitude of mainstream pupils and teachers towards unit pupils after the intervention?
6. After seeing the effects of the intervention, do you think that unit pupils should be integrated into the mainstream or sent to special schools or maintained in the unit?
7. Do you think that the unit pupils decreased negative social interaction among themselves as a result of the intervention?
8. Did the intervention increase social interaction between unit pupils and their mainstream peers?
9. Do you think that the intervention should now spread to the whole school?

Appendix 8: Guided Interview Questions - Head teachers' Perceptions of the Social Interaction Intervention Programme.

1. What do you think about the presence of pupils with intellectual disabilities in your school?
2. Do you think pupils with intellectual disabilities are benefiting academically and socially from being integrated in your school?
3. What were the attitudes of your teachers toward unit pupils before the social interaction intervention?
4. Was the social interaction intervention easy to implement at your school?
5. What was the attitude of mainstream pupils and teachers towards unit pupils after the intervention?
6. After seeing the effects of the intervention, do you think that unit pupils should be integrated into the mainstream or sent to special schools or maintained in the unit?
7. Do you think that the unit pupils decreased negative social interaction among themselves as a result of the intervention?
8. Did the intervention increase social interaction between unit pupils and their mainstream peers?
9. Do you think that the intervention should now spread to the whole school?