

**A STUDY OF THE SELF-CONCEPT OF CHILDREN WITH
VISUAL HANDICAPS IN INTEGRATED AND SPECIAL
SCHOOLS IN KENYA**

BY

JAMES MATEE MUOLA

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JAMES MATEE MUOLA

A Thesis Submitted to the Graduate School in Fulfilment of the
Requirement for the Award of the Degree of Doctor of Philosophy
in Educational Psychology of Egerton University
Njoro, Kenya

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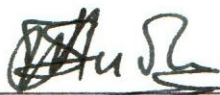
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DECLARATION

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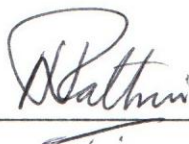
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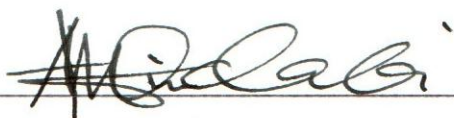
This thesis has been submitted for examination with our approval as university supervisors.



3/10/2000

PROF. N. J. KATHURI

Date



21/9/2000

DR. A. M. SINDABI

Date

DEDICATION

This thesis is dedicated to my wife, Damaris Matee and daughters, Mbele and Minoo.

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ABSTRACT

The major purpose of this study was to investigate whether there is a difference between the self-concept of children with visual handicaps in integrated and special schools in Kenya. To achieve the objectives of the study, the self-concept of the two groups was compared. The sample of study comprised of 194 children (100 boys, 94 girls, 174 partially sighted and 20 totally blind) in class 5 to 8 with visual handicaps placed in integrated and in special schools. Self-concept was measured with a self-concept scale developed by the researcher based on existing self-concept scales. Other variables examined in relation to self-concept were pupil-pupil and teacher-pupil interaction, gender, age level, period of placement, and class level. The data was analysed using the two-tailed t-test, Pearson's product-moment correlation analysis and the analysis of variance.

No significant differences were found between the self-concept of the whole sample and partially sighted subjects. Totally blind pupils in integrated schools had a significantly higher self-concept than their counterparts in special schools. Gender, period of placement in integrated schools and age level did not seem to have any significant effect on the subjects' self-concept. Prolonged placement in special schools was found to have a significantly positive effect on self-concept. The results also indicated a significantly positive relationship between self-concept and pupil-pupil and teacher-pupil interactions. Finally, the results indicated that self-concept tends to improve as children progress from one class to another. It was recommended that factors that may hinder the development of a positive self-concept and the education of children with visual handicaps be looked into, such as acceptance of the child by the immediate persons around him, lack of basic

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CHAPTER 1

INTRODUCTION

1.1 Background of the Study

The Kenyan Government policy on education has been to provide education to all children, including those who are handicapped. This is in line with the final report of the World Conference on Education for All (WCEFA, 1990) held in Jomtien, Thailand, where Kenya was represented by the Minister of Education. The intention of this conference was to launch a renewed world-wide initiative to meet the basic learning needs of all children, youth and adults and to reverse the serious decline in basic education services observed in many countries during recent years. The proceedings of this conference noted the importance and impact of basic education and called for a renewed commitment to making education available to all in accordance with the United Nations Universal Declaration on Education (United Nations, 1985) as one of the fundamental rights entitled to all children without discrimination. Article 3(5) of the WCEFA report stressed that the learning needs of the disabled demand special attention and that steps need to be taken to provide equal access to education to every disabled person as an integral part of the education system (WCEFA, 1990). Hence, the Kenyan government's commitment to provide education to all children with disabilities, either in special schools or in regular schools where possible.

The increasing number of children with special needs has made it impossible to accommodate all of them in the few special schools available. According to the then Director of Education, Mr. Njoka (1996), about 75 per cent of children with physical handicaps cannot get access to education because of the shortage of special schools. Due to this shortage, the Government has been advocating the admission of these children to the ordinary schools. The Director further noted that, out of the 80,000 handicapped cases that

by the end of 1995, only 12,000 could be accommodated in special institutions. These statistics implied that the majority of these children were still at home. The Permanent Secretary, Ministry of Education and Human Resources Development (Masiga, 1997) noted that the Government was concerned that out of the 90,000 children with learning disabilities, only 12,000 were enrolled on special programmes. As a result of this, the Government was planning to expand special education in the country. The serious shortage of special schools has made it absolutely necessary to integrate children with special needs into ordinary schools. This is a new concept in the Kenyan Education system. Some parents have been prompted by the shortage of special schools and lack of a clear government policy in identifying children with disabilities for proper placement to send their children who are handicapped into ordinary schools. Further, the current trend towards greater integration of children with special needs in regular schools and the need to educate them in a normal and less restrictive environment has led to an increased integration of most of them into ordinary schools. This is advantageous to the government because it has reduced the expenditure in education, which would have been incurred through the provision of special schooling.

The goal of education for children, whether in special or in ordinary schools, is to prepare them for independent adult life or citizenship, and to meet their developmental needs such as emotional, social, physical, mental and personality development. It is possible that segregation into special schools may have some negative impact on the development of children with handicaps. This could be occasioned by the lack of adequate social contact and interaction between them and their normal peers and parents, since most of the special schools are boarding. Research findings by Hegarty, Pocklington, and Lucas (1981) and Janney, Snell, Beers and Raynes (1985) show some improvement on the self-esteem, self-independence, self-confidence, and self-image of children with physical

may lead to educated pupils with no experience of relating to other people because of the social and emotional separation from parents and normal peers. Integration may prepare these students to live in an integrated environment as adults.

The child who is placed in a special school may feel that he/she is being separated from regular education school pupils because of his/her inability to do what they can do. He/she may also feel unwanted and neglected and will not know how to measure up with social expectations and standards. As a result, the child may develop a poor self-concept and fall far below what is expected of him/her as a person. On the other hand, a child who is placed in an ordinary school may develop a positive outlook to life and begin to think about what he/she can do and what he/she wants to accomplish in life. He/she may also strive to meet the social expectations placed upon him/her by his/her normal peers and the people around him/her.

Being surrounded by normal children may provide children with special needs with models for appropriate social behaviour, including a positive self-concept. On the other hand, if placed in a special school, the child will be isolated from normal behaviour patterns such as good table manners, proper emotional response and control, self-independence, and self-confidence.

For children to succeed in education, they need to develop a positive self-concept. This variable has been consistently known to be positively related to academic achievement (Omizo, Hammet, Loffredo & Michael, 1981; Hansford & Hattie, 1982; Song & Hattie, 1984; Mwamwenda & Mwamwenda, 1987; Marsh, Byrne & Shavelson, 1988; Marsh, 1990).

In order to guide, counsel and rehabilitate the child, who is handicapped, we must know how school environment affects his/her behavioural patterns such as self-concept.

interaction with a child who has a handicap may affect the way he/she perceives himself/herself.

When we expect the child who has a handicap to excel in various aspects of life (such as education and career) we should not forget that there are psychological factors that can hinder him/her from achieving what the normal child can achieve. Lack of a stimulating environment, motivation, and low self-concept compounded with the child's disability could make the child to achieve less than his/her mental ability can allow. Otherwise, it would be wrong to tell the child that a disability is not an inability when he/she may be psychologically disadvantaged.

One main advantage of integration is that of adaptation of children who are handicapped in an unhandicapped world - the world they are being prepared to live in as adults. Children with handicaps will live in the community as adults; therefore, they do not need to be separated from their so called abler counterparts unless it is absolutely necessary. A child who is not severely handicapped and who can fit in an ordinary school should not be unnecessarily placed in a special school. The special school may not prepare him/her adequately for adult life and societal integration.

Mainstreaming may assist the child to get acceptance and support from his/her colleagues and to be integrated socially. Segregation into special schools may make the child to feel that he/she is different and inferior to the normal ones and may be another added handicap to him/her. Some of the children who are handicapped may not recognise that they are different and may not have low opinion of themselves until people begin to treat them differently and with discrimination, hence the need for integration. Contrary to the premise that integration may result in the acceptance of the child who is handicapped, he/she may be discriminated against or fail to be accepted and recognised by both teachers and the normal children. The child also, may not measure up to the normal childrens'

general expectation that integration will enhance it. This situation made it necessary to investigate how integration affects the child's self-concept.

The pupil's gender, period of placement, level of interaction with other pupils and teachers, age, and class level were considered in the present study as factors that may also contribute to the differences in self-concept among children with visual handicaps placed in ordinary and special schools.

1.2 Statement of the Problem

It may be possible that most of the educational needs of children who are handicapped can be met either in the special school or in the ordinary school. However, there is some doubt on whether other developmental needs such as emotional, social, self-esteem, self-reliance, among others, can be adequately met in the special school. The segregation which is characteristic to the special school may interfere with the development of the child's personality which requires an appropriate, natural and less restrictive social environment. The current study focused on one specific aspect of personality development, namely, self-concept.

Although there has been a lot of emphasis on the current trend towards greater integration of children who are handicapped into the ordinary school, little research has been conducted in western countries to show how the exercise benefits the children involved. There is no local study known to the researcher that has investigated the effect of integration on the child's self-concept. Segregation of children who are visually handicapped from the larger social group and their normal peers may have adverse effects on their self-concept and may make them feel neglected, isolated, unaccepted, and unwanted. Placing the partially sighted child together with the blind and being labelled exceptional may give him/her an inaccurate image of himself/herself, such as the feeling that

These feelings may interfere with the development of a positive self-concept - a problem that may be partially solved by placing them alongside their normal peers in the ordinary schools.

The negative attitudes towards the child who is visually handicapped may not have changed much in our country and this may imply that he/she will not get adequate acceptance, support and recognition from teachers and pupils in the ordinary school. Acceptance, support, and recognition are prerequisite conditions to the success of integration and the benefits to be gained by the child. In a case where the child is not accepted and recognised, integration may be a detriment rather than a solution to his/her feelings of unworthiness. Thus, a study to investigate the relationship between the child's self-concept and integration was found to be important.

1.3 Purpose of the Study

The main purpose of this study was to investigate whether integration, gender, length of placement, pupil to pupil interaction, teacher to pupil interaction, age and class level influence the self-concept of children with visual handicaps.

1.4 Objectives of the Study

At the completion of the study, the researcher expected to establish whether:

- (i) Placement of children with visual handicaps in an ordinary or in a special school differentially affects their self-concept.
- (ii) The gender of children with visual handicaps affects their self-concept.
- (iii) The period of placement in a special school affects the self-concept of children who are visually handicapped.
- (iv) The period of placement in an integrated school affects the self-concept of children who are visually handicapped.

- (v) There is a relationship between self-concept and the level of pupil-pupil interaction.
- (vi) There is a relationship between self-concept and the level of teacher-pupil interaction.
- (vii) There is a relationship between the level of pupil-pupil and teacher-pupil interaction.
- (viii) There is a difference between the self-concept of younger and older children with visual handicaps.
- (ix) There is a difference between the self-concept of children with visual handicaps in different classes.

1.5 Hypotheses

To achieve the research objectives, the following hypotheses were formulated:

- (i) There is no significant difference between the self-concept of children with visual handicaps in integrated and those in special schools.
- (ii) There is no significant difference between the self-concept of male and female pupils with visual handicaps in ordinary and in special schools.
- (iii) There is no significant difference between the self-concept of children with visual handicaps placed in special schools for a shorter period of time and those placed for a longer period of time.
- (iv) There is no significant difference between the self-concept of children with visual handicaps placed in integrated schools for a shorter period of time and those placed for a longer period of time.
- (v) There is no significant relationship between self-concept and the level of pupil-pupil interaction.
- (vi) There is no significant relationship between self-concept and the level of teacher-

- (vii) There is no significant relationship between the level of pupil-pupil and teacher-pupil interaction.
- (viii) There is no significant difference between the self-concept of younger and older children with visual handicaps.
- (ix) There is no significant difference between the self-concept of children with visual handicaps in different classes.

1.6 Significance of the Study

The present study investigated how placement in ordinary or in special schools and pupil to pupil and teacher to pupil interactions in these institutions tend to influence the self-concept of children with visual handicaps. This was important for a number of reasons. First, it would provide information on some of the outcomes to be expected from integrating children who are handicapped in general. Secondly, given the diversity of handicaps, it was not easy to look at all children with handicaps in one single study. The findings to be obtained in this study in relation to children who were visually handicapped could give a picture of what is to be expected in integrating children with other types of handicaps. Finally, it was important to focus on the visually handicapped at the moment since most of the integration programmes that had already been initiated in the country had mainly targeted children with visual handicaps. The findings in this study would serve as a point of reference or provide insight to the success or failure and merits or demerits of future integrated programmes.

For normal and handicapped children to compete favourably and to benefit equally from the educational system, it is important for both groups to develop positive self-concept, motivation, and interest among other attributes that may have a bearing towards

physical environments that are crucial in facilitating the development of a positive self-concept and other personality traits in general.

Although some studies have been done in Kenya on the area of special education and integration (e.g., Waititu, 1981; Kibisu, 1984), there is no study known to the researcher that has looked at how the placement of children with handicaps in special schools can affect their self-concept. This research was therefore, undertaken to provide important information in an area where limited research has been done.

Lack of sufficient special schools in Kenya made it necessary to look into the possibilities and advantages of successfully integrating children with mild and severe handicaps into the ordinary school. Integration of children with handicaps into regular schools may not only benefit them but could also save the government the burden of constructing and running special schools. The funds that would have gone into the construction of special schools and provision of boarding facilities would then be used to provide the backup services needed in regular schools to make integration a success.

The study anticipated to document the impact of placement of children who are visually handicapped in special schools on their self-concept. The opportunity for social interaction provided by integration may better prepare the child with a visual handicap for community, vocational and domestic environments.

The present research was expected to create awareness in the community about the plight of children who are handicapped and to stimulate interest for more research on the studied variables and others that may be thought to have a bearing on the development of these children.

This research was expected to make suggestions on how educators, teachers, policy makers and parents could enhance and facilitate the development of positive self-concept

The research hoped to come up with recommendations on how the government could encourage integration and institute comprehensive guidelines to ensure timely identification and proper integration for the benefit of children who are handicapped.

The study was also expected to contribute towards the understanding of the self-concept construct by showing how it is influenced by integration, gender of the child, length of the period of placement in a particular schooling environment, age level, interaction with other pupils and teachers, and class level. An understanding of the disparities in self-concept that may exist between children with visual handicaps who are placed in normal schools versus those in special schools would be of much use in the guidance, rehabilitation, and design of educational programmes and curriculum suitable for them. The insight provided could be of help in developing self-concept enhancement programmes.

1.7 Limitations of the Study

Time constraint and lack of control over extraneous factors such as the child's intelligence, school environment, home environment and social background were limitations that could have influenced the outcome of the current research. The area covered in this study was very diverse and the availability of subjects, especially in the integrated schools was limited, therefore, matching in terms of school environment, home background, intelligence, and other factors was rendered almost impossible. A longitudinal study involving a smaller sample would have been more ideal if time allowed. Such a study would have made a pre-test on the onset of placement and a post-test on self-concept

1.8 Definition of Terms

The operational definitions of the terms that were pertinent to this study are explained below.

Blind: Individuals with total loss of vision or who have light perception only. Such children can only learn through the use of braille and other related media without the aid of vision.

Child with a handicap: Is a child who has a disability (e.g., blindness, speech disability, mental disability, and congenital malformations) of the body which prevents him/her from living a normal life. For the purpose of this study the researcher dealt with children who have visual handicaps.

Children with visual handicaps: Children who require special education provisions because of their visual problems. The term subjects was used interchangeably with the term children to refer to the sample selected for study.

Handicap: A disadvantage for a given individual resulting from an impairment or a disability that limits or prevents the fulfilment of a role that is considered normal (WHO, 1980, cited in Abilla & Kang'ethe, 1991).

Impairment: Any loss or abnormality of psychological, physiological, or anatomical structure or function.

Integration: Refers to educating pupils with special needs in ordinary schools.

Integrated schools: Refers to schools that provide education to children with handicaps alongside children who are normal.

Mainstreaming: The process of bringing children with special needs into contact with normal children in an educational setting. The terms mainstreaming and integration were used synonymously in this study.

Ordinary schools: Refers to schools that provide education to normal children. The terms, integrated, normal and ordinary schools were used interchangeably in this study.

Partially sighted children: Refers to children with low vision or visual limitations that make it difficult for them to see learning materials without special lighting or magnifying devices. They may be unable to see distant objects unless the objects are moving or they may need to wear prescriptive lenses or use optical aids and special materials to function visually (Barraga, 1976).

Placement: Refers to the act of putting a child who is handicapped in either a special school or an ordinary school depending on which is thought to be more suitable in serving his/her special needs.

Segregation: Refers to the process of enrolling children with handicaps in special schools that serve only those with special needs.

Self-concept: Is the way a person perceives himself or herself.

Special schools: Refers to segregated schools that provide special education for children with handicaps.

Visual acuity: The measurement of the sharpness of vision as it relates to the ability to discriminate detail. It includes distance and near visual acuity with and without correction. An acuity of 20/200 means that a person must stand at 20 feet to see what someone with normal vision can discriminate at 200 feet (Levack, 1991, p.30). A child is considered to be visually impaired when his/her visual acuity reaches the level of 3/18.

Visual handicap: Refers to all degrees of visual impairment - a continuum from severe visual impairment to total blindness (Kirk and Gallagher, 1986, p.166). For the purpose of this study, the researcher dealt with children who are partially sighted

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

In this chapter, the major concepts and variables of interest in this study are discussed and the relevant literature reviewed. First, the construct of self-concept and the related theories are discussed. Secondly, the general concept of integration is presented. This is followed by a discussion of integration of children with visual impairments as a possible predictor of their self-concept together with the related literature. Then a brief discussion of some of the documented benefits of a positive self-concept is presented. The chapter also examines social interactions in the integrated and special school settings. Lastly, a discussion of gender differences in self-concept among children with handicaps is discussed.

2.2 Definition of Self-concept

Self-concept was one of the major variables in this study. A survey of the literature available shows that there is no universal definition of the term self-concept. The lack of consensus in the definition of the term and measuring instruments or research design can be attributed to the many theories of self-concept in existence. According to Wylie (1961), one's theoretical orientation governs one's definition and measurement of self-concept. In her view, self-concept can be thought of as an organized configuration of perceptions of the self which is admissible to awareness or consciousness. It is composed of such elements as the perceptions of one's characteristics, attitudes, preferences, ideas, feelings, abilities, percepts and concepts of the self in relation to others and to the environment. Coopersmith

...consists of the beliefs, hypotheses, and assumptions that the individual has about himself. It is the person's view of himself as conceived and organised from his inner vantage. The self-concept includes the person's ideas of the kind of person he is the characteristic he possesses and his most important striking characteristic (p.198).

This definition stresses the individual's conception of what he/she is really like or his/her actual self. A more elaborate definition of self-concept was given by Zahran (1967). He defined it as:

An organised, learned, cognitive and unitary configuration of conscious perceptions, conceptions and evaluations by the individual, of his self as he actually is (perceived-self), as others are supposed to see him (other-self), and as he would most like to be (ideal-self) (p.225).

In addition to the individual's perception of who he/she is, this definition emphasises two other important elements, the perception of others about the individual (other-self) and what one thinks he/she ought to be and would like to be (ideal-self).

According to Mwamwenda (1989), the way one perceives himself/herself is basically a function of both his/her perception of himself/herself independent of others and his/her interpretation of how others perceive him/her. Thus, a disabled child who is segregated from his/her normal peers may think that he/she is somewhat different from others and feel unwanted and as a result may develop a negative perception of himself/herself. Andrews (1966) defined self-concept in the following way: "It is the 'picture' an individual has of himself from his interaction and experiences with his environment. This picture is initially based on his early perception of himself as a set of physical and mental characteristics" (p.47). This definition points out at the environment as an important factor that determines the kind of experiences the individual will encounter. The regular and special school may provide two distinct environments with varying social

Although there is considerable disagreement on the precise definition of self-concept, social psychologists and sociologists seem to share a common view, that self-concept cannot be directly observed. It can only be inferred from a person's behaviour or self-reported data. In fact, Jersild (1952) argued that one of the distinguishing characteristics of the self is that it can only be defined by the individual because it's only him/her who has access to the experience of the self.

In the current study, the child's general or global self-concept was studied as opposed to specific levels of the construct identified by researchers recently (Shavelson, Hubner & Staton, 1976; Harter, 1983; Moeller, 1993). In Shavelson's view, self-concept is structured hierarchically and has three identifiable levels. At the top of the hierarchy is a fairly stable general (or global) self-concept. At the middle level are specific factors of self-concept such as academic self-concept, social self-concept, emotional self-concept, and physical self-concept. In this level we find feelings about ourselves in specific areas. At the bottom level are more specific sub-areas of self-concept such as mathematics self-concept, science self-concept, and peer relations self-concept. According to Hoge et al. (1995), the proposition that self-concept is structured hierarchically in this manner is not under dispute today.

It is worth noting that different authors have used both the term self-concept and the term self-esteem to refer to the same entity. Shavelson and Bolus (1982) and Marsh (1987) are prominent researchers who use self-concept, while Rosenberg, Schooler and Schoenbach (1989) use self-esteem. These writers refer to the same thing, and even the measures they use are indistinguishable. In this research, the term self-concept is used

2.3 Theories of Self-concept

A review of literature on self-concept suggests that its development depends on a number of factors, and that it is not fully understood. In an attempt to understand self-concept, different theorists have tried to look at its development and the factors that influence it. Three theoretical approaches to self-concept are discussed in this section. These are the interactionist theory of self-concept as formulated by Mead (1934) and Gordon (1972), the cognitive theory to the development of self-concept as presented by Piaget (1967) and Bem (1972), and the ecological theory as presented by Hormuth (1990). The relevance of these approaches to the research problem investigated is also discussed.

2.3.1 The Interactionist Theory

The interactionist theory of self-concept mainly emphasises the role of the society and the persons with whom the individual interacts with in determining his/her self-concept. Mead (1934) and Gordon (1972) are some of the major proponents of this approach. In his conceptual framework of self-concept, Mead looked at it as a conditioned response or perception learned from the reactions, attitudes and feelings of other individuals.

This approach assumes that the child is born without any concept of himself/herself. As the individual child matures and interacts with others, he/she acquires a notion of who he/she is and what he/she is. Mead pointed out that, self-concept is basically a product of social interaction and social experience. Through social interaction, the individual comes to learn about the values others hold about him/her, which can either be positive or negative. Such values are reflected in the reactions and actions of other persons towards the individual. Thus, the self-concept will be a reflection of the way the individual is perceived by those with whom he/she interacts with and the way he/she interprets the

self-concept and a pattern of behaviour that is consistent with the social expectations and his/her perception of the expectations he/she thinks others have on him/her.

According to Mead, the individual experiences himself/herself directly and indirectly. Direct experience involves the way the individual thinks of himself/herself independent of others. Indirect experience comes in the form of taking the roles of other members of the social group and seeing himself/herself from their perspectives. The child is treated by significant others as a member of the social group and as a result he/she incorporates the conceptions others have of him/her into his/her self-concept after carrying out an internal conversation with himself/herself. According to Maritim (1979), this inner conversation involves the thought process of interpretation and internalization of the expectations of others. Thus, in Mead's conceptualization, the individual's construction of his/her self-concept is dependent upon what others think of him/her (self-as-subject) and what the individual thinks of himself/herself (self-as-object).

The school environment and the people in the school (teachers and peers) affect the child's self-concept. In the present study it was assumed that the child who is visually handicapped is able to construct an image of himself/herself depending on the people who surround him/her and their treatment within his/her environment.

Whether a child develops a positive or a negative self-concept depends largely on how he/she is treated and how he/she perceives such treatment. If the reaction of others is positive, the child is likely to accept himself/herself as a person of worth and to develop a positive self-concept (Rogers, 1961). On the other hand, if the reaction of others is negative, he/she is likely to consider himself/herself as worthless and develop a negative self-concept. The above implies the necessity of equal treatment of handicapped and normal children. According to Griffin and Kendal (1989), other people may have inappropriate high expectations about what the child who is visually impaired, especially

suggest any disability. When these expectations are not met his/her self-concept will be affected.

Gordon's (1972) view of the development of self-concept not only emphasises the role played by others, but also the importance of the individual's developmental process. Gordon views self-concept as a developmental concept. According to him/her, self-concept changes with the developmental process from infancy to adulthood. The infant in its early months is self-centred and perceives his/her world through senses governed by his/her biological needs. If the infant is kept comfortable and his/her responses are attended to, he/she begins to develop the notion that the world is a good place and that he/she is a good person. Such a notion may consequently lead to the development of a feeling of self-worth. On the other hand, if little is done to meet his/her needs and if he/she is not kept comfortable, he/she begins to think that he/she has little control over things and that the world is a hostile place. As a result of this, he/she may develop a feeling of unworthiness.

Gordon (1972) suggests that the child's self-concept develops in a social setting and reflects the responses and the expectations of his/her significant others. Thus, from the responses and expectations of others, the child acquires a feeling of self-worth. As the child develops, he/she learns to compare himself/herself with the people he/she interacts with, both in the family and in the school. From these interactions, the child will also learn to see himself/herself as competent or incompetent, successful or unsuccessful, loved or hated, good or bad, weak or strong, trusted or untrusted, and so on, depending on the way he/she is perceived and treated by his/her significant others. This is consistent with Mead's (1934) theory on the development of self-concept.

The family is the first social context, where the child comes into contact with those persons he/she values most. He/she acquires attitudes and value systems through socialization practices in the family. It is in the family where he/she develops the first

way his/her behaviour is received by the father, mother, brothers, sisters and caretaker. Through this interaction, he/she is able to take over and internalize the conceptions these people have of him/her (Maritim, 1979).

Gordon (1972) attempts to show that, the self-concept is not static, rather growth and experience affect it. Different stages of development contribute to one's self-concept. To Gordon, self-concept development is a life span process that changes according to the contexts. New contexts such as school and new significant others such as teachers may build or change the child's self-concept. This argument is in line with the basic assumption in this study that, placement of children with visual handicaps in ordinary schools or in special schools, which are two distinct environments with different people, may affect their self-concept differently. These two environments provide different social experiences to the pupils concerned. Gordon (1972) emphasised that, the internalization of the significant others' perceptions, labelling and expectations crystallize the child's self-concept. Once the self-concept crystallizes, the child attempts to protect it whenever it is threatened by maintaining self-consistency. Gordon's understanding of the development and changing nature of the self-concept can be summarised in his/her own words as follows:

Since the child is growing and is both constantly being exposed to new experiences both from within and without his skin, his self is not static. It is constantly in the process of organizing, of taking new ideas, feelings, attitudes and adding these to the already developed personality. Self-concepts are not unchanging. They are affected by growth and experience. While they help the child to select and evaluate experience, they are also being affected by experience. They are influenced by all the forces acting upon the child, as well as being forces themselves (p.12).

Gordon's conceptualization of the development of self-concept is mainly centered on its developmental nature and the significance of the child's experiences. The child enters school at the age of around six when his/her self-concept is still in the formative stage; therefore, the type of school he/she joins is likely to affect it in one way or the other. The social setting provided by the school where the significant others include peers and

handicapped perceives himself/herself. Tutee (1987) says that teachers can influence the way pupils feel about themselves and others, and play an important role in the shaping of each student's self-concept.

2.3.2 The Cognitive Theory

The proponents of the interactionist theoretical approach to the development of self-concept do not deny the existence of cognitive components of self-concept, but their main emphasis is on interaction between the self and others. The cognitive theoretical approach to the development of self-concept is concerned with when the child is capable of possessing and constructing a self-concept. The development of cognitive functions and mental maturation facilitates the development of self-concept (Piaget, 1967; Bem, 1972). According to Piaget, the child passes through four qualitatively distinct sequential stages. Each of these four cognitive stages is characterized by its own cognitive and social behaviours resulting from the child's mental maturation and his/her physical and social environment. As the child advances from one stage to another, and as he/she develops higher levels of cognitive structures, he/she develops specific, more differentiated and integrated concepts. Self-concept is one of these integrated concepts (Horrocks & Jackson, 1972).

Along these sequential stages of cognitive development, the development of self-concept depends mainly on the child's understanding of the relationship between himself/herself as the subject (conception of himself/herself as a doer) and as the object (conception of himself/herself as the receiver). This implies the child's ability to differentiate between his/her perspective from that of the other person both of which contribute towards the development of a consolidated self-concept. From one stage to another, this relationship shows qualitative differences (Maritim, 1979). During the infancy

perspective of the other person. As to whatever happens in his/her environment, he/she does not consider himself/herself as both a doer (subject) and receiver (object). During this stage he/she understands the environment in terms of biologically endowed reflexes such as pain reflex, that communicate to him/her that he/she is in an insecure environment. Socially, he/she is unable to consider another person's point of view - what Piaget calls egocentrism.

During the pre-operational stage (2-7 years), the child is incapable of logical thought and still remains egocentric. By the end of this stage, egocentric thought begins to give way to decentricism, that is, the ability to evaluate one's self from others point of view. At the same time, the child's concept of himself/herself will be qualitatively different from the one he/she had during the earlier years.

At the concrete operational stage (8-11 years), the child understands the concepts of seriation, conservation, classification and relations of objects. Thought during this stage is bound to the real world, the concrete. The child is still unable to understand combinational possibilities. The child's concept of himself/herself continues to change qualitatively as he/she proceeds through this stage and does not seem to stabilize until he/she enters Piaget's fourth stage of formal operations (12-15 years).

Cognitive theorists (Piaget, 1967; Bem, 1972; Horrocks & Jackson, 1972) argue that a child is capable of possessing and constructing a meaningful self-concept when he/she enters Piaget's fourth stage that corresponds with the onset of adolescence (12-15 years). During this stage, he/she can develop and test cognitive hypotheses concerning his/her personal worth. This may suggest that the child's self-concept does not stabilize until this stage. Moeller (1994) disagrees with this view, arguing that self-concept begins to stabilize much earlier before the adolescence stage.

During the adolescence stage, the individual suffers from identity crisis and this is

the adolescent is capable of defining himself/herself in terms of what he/she is and what he/she is not. In other words, he/she formulates hypotheses about what he/she is and goes ahead to test them and as a result he/she gains more self-awareness. The adolescent evaluates himself/herself, applies his/her value criteria and builds expectations about himself/herself in relation to the various roles he/she adopts and arrives at a new self-concept by hypotheses (Horrocks & Jackson, 1972). Since the adolescent is capable of understanding and taking the perspective of others, he/she evaluates himself/herself in relation to their evaluations, feelings, values, opinions, attitudes and reactions.

The relationship between cognitive development and the development of self-concept is firmly established. Changes in cognitive development are directly related to changes in the way one perceives himself/herself. Hormuth (1990) strongly supports Piaget's theory on the development of self-concept when he/she argues that entrance into a new life stage can change one's self-concept.

The self-concept can be thought of as a dynamic structure, constantly acquiring new cognitions that are related to existing cognitions about the self. The new cognitions are likely to add stability to that structure. The acquisition of knowledge that stabilizes the self-concept is fostered, whereas knowledge inconsistent with a person's self-concept is likely to be rejected (Hormuth, 1990). In Piaget's terms, new ideas about the self that are consistent with the current conception of the self will be accommodated in the existing cognitive structure.

In short, the cognitive approach to self-concept centers mainly on how the individual acquires mental representations of the self and how cognitions of the self change from one stage of life to another in relation to cognitive maturation. Segregation and integration in primary schools is done early when the child is not cognitively mature and at a time when his/her self-concept is unstable and still undergoing structural changes. Therefore, as the

cognitions that may reflect the kind of environment he/she is exposed to and the kind of treatment he/she gets from the people around him/her.

2.3.3 The Ecological Theory

Hormuth (1990) proposed an ecological approach to self-concept development and change. This theory is not different from previous theories but it puts much emphasis on the ecology of the self, that is, the constituents of the self, namely, others, environments, and things that provide, mediate, and perpetuate social experience. Hormuth sees the self as a reflection of this ecology.

This theoretical approach encompasses cognitive social psychological approaches, sociological approaches and contributions from environmental psychology. One of the basic theoretical assumptions underlying this approach is that the development of one's self-concept occurs through social experiences that take place in a context of, and in interaction with others (as the source of direct social experiences), with objects (as symbols and representations of social experiences), and with environments (as the settings of social experiences). According to Hormuth, the self-concept will remain stable as long as the ecological system of the self is stable. On the other hand, change in the ecological system of the self will bring about changes in the self-concept of the person. This change may not be radical given that the individual will have developed an organized self-related cognitions that will be used to assess the demands of the new situation and attempt to maintain stability or adjust accordingly as the new situation becomes familiar.

The function of others on the self-concept is the reflection and reaction to one's actions both verbal and non-verbal. This idea is noted in Mead's (1934) theory on self-concept. For Mead, the self develops by mirroring society. The reactions of others to one's actions act as a point of reference for the self. Both the self and societal rules, expectations,

interactions provide the role models that may be incorporated into one's own conception of self. Hormuth (1990) argues that, exposure to alternative models of conduct and interaction with others provide the individual with the experience necessary for the development and change of self-concept.

While social interactions are thought to be central to the dynamics of the self-concept, others do not necessarily have to be physically present to provide social experiences. Social experiences are generalised and symbolized in various forms such as rules, expectations and also in physical objects. Objects and personal possessions can display the self to others. They can announce an attribute of the person to others. For instance, this can be done through the style of house one lives in, or the books displayed on one's shelf. Objects carry no meaning by themselves but they are used to mediate and produce experiences about oneself. For example, a stereo set can be used to produce the type of music that allows an adolescent to experience himself or herself. In an attempt to elaborate the role played by objects in relation to the self, Hormuth (1990) noted that:

...they are the necessary tools, such as a record player for a dance, and can thus be prerequisites for acquiring a certain component of the self-concept, such as a dancer, a skier, or a music-lover. They can also function as the representation of past social experiences to stabilize and to maintain those aspects of self that are related to the past. For instance, a photo album or memorabilia can serve this function (p.2).

Objects can also be symbolic of the self, such as the contents of one's bookshelf, photographs, furniture, or works of art. Cherished possessions or objects that symbolize the self serve either to help individuals strive toward or maintain a certain status of self (Wicklund & Gollwitzer, 1982) or to present a desired image of one's self to others (Schlenker, 1980). Objects can reflect and provide social experiences, therefore, they should be considered as one of the factors that contribute significantly to the understanding, development and perhaps maintenance of the self-concept. Desired objects and those in one's possession will not only determine the individual's future goals and self-perceptions,

The third important element in Hormuth's ecological approach to self-concept is one's environment. Different environments provide the place for a person's experience or actions and can be symbols of one's identity. Environmental settings can provide societal rules of conduct (Barker, 1965) that can influence the individuals' self-concept. For example, a military environment which is governed by strict regulations can greatly influence the self-concept of a person who joins the army. Likewise, a Christian environment can determine the way an individual views himself/herself. Members of the same environment will display very similar behaviour patterns probably because they share common rules and social conduct. The characteristics of a particular environment determine the specific goals the individuals have to cope with and also the kind of life goals they will set for themselves.

Environments provide prerequisites for self-concept-relevant behaviour, such as a mountain for a skier, a church for a christian, or a sea for a sailor. Environments are not only natural but can also be arranged, for instance, when furnishing a flat, or when planning for the provision of special schooling. Such environments can be a reflection of the self-concept and can either serve to maintain or change it as the situation may demand. One's physical environment will shape and determine the kind of social experiences to be encountered.

The environmental setting was one of the important factors taken into account in the current study whereby it was assumed that the provision of two different environments for children who are visually impaired would have varying effects on their self-concept. The special and regular schooling environments are distinct in terms of significant others, objects and experiences provided to the child. The two schooling environments are also different in terms of social demands and relationships, therefore, they may be expected to have varying effects on the child's self-concept Jelvis (1964) felt that self-concept is as a

children with visual handicaps interact daily with normal children and as a result they may see and rate themselves in terms of normal individuals as compared to children placed in a special schooling environment.

In trying to explain the nature of the ecological system of the self and how it facilitates the development and change of self-concept Hormuth (1990) noted that:

The self-concept develops and exists in interaction with its social and physical environment to form an ecological system for the self. Certain factors serve to stabilize this ecology, above all social commitments. These are central to the self as they involve and bind together a number of social relationships. Changes in central social commitments either reinforce or question the self-concept. A questioned self-concept can only lead to self-concept change if the ecological system of the self affords the opportunity (p.5).

Changes in the social and physical environment of the child may lead to change of self-concept if the new environment is not consistent with the present view of the self. On the other hand, if the new environment is consistent with the self-concept there will be no change. Aspects in the new environment that support and enhance the present self-concept may be incorporated in the ecology of the self while those that do not support it may be resisted. Change in one's social environment leads to new social relationships and new commitments that may necessitate change in the way one perceives himself/herself. Hormuth's ecological approach to self-concept can be summarised in the following quotation:

The self-concept exists in interdependence with its ecology of others, objects and environments. As long as the ecology of the self is stable, the self-concept will be stable and strive toward maintenance. Self-concept change, on the other hand, results from an imbalance in the ecology of the self that leads toward restabilization under different ecological conditions, a restructuring of the self (p.3).

Imposed changes in the environment will lead to self-concept change through situational adjustment. A change in the social and physical environment may result in evaluation of the self and later on change or maintenance of the self-concept as the new environment may demand. Change or maintenance will occur depending on the requirement of the current

Hormuth's ecological approach is backed by Tuttle's (1987) claim that, rather than being fixed, self-concept is responsive to changes in time, space, situational demands and apparent discrepancies between the real-self and ideal-self. This claim recognizes the fact that changes involving significant others, environmental setting and demands of any new situation can affect one's self-concept. Removing a child from a normal environment and placing him/her in a special school environment is likely to affect his/her self-concept in one way or the other.

Hormuth's conceptualization of self-concept was found to be relevant in this study because the ecology of the self-concept of the child who is visually handicapped in the ordinary school was assumed to be different from that of the child who is visually handicapped in the special school. When the child who is visually impaired is removed from the integrated social environment and placed in a segregated social environment his/her self-concept may undergo some change, hence the researcher's desire to investigate the direction of this change.

2.4 Integration

The term integration in the educational circles is used to imply the participation of children who are handicapped in curricular, social and other extra-curricular activities in the general education school. Children with special needs are at risk of becoming emotionally and socially retarded if placed in special schools. While in special schools, they will miss the opportunity to excel in peer terms, the training to be independent and self-reliant and to develop positive self-concept that can be possibly achieved in ordinary schools.

Integrating a child who is handicapped into normal life will facilitate adaptation in interacting and competing with people who are not handicapped. It will make the child feel

where he/she lives and works with his/her peers and he/she is freed from isolation that is characteristic of special school placement. Integration in an ordinary school can help to achieve societal integration. In this case, integration can be viewed as an end in itself and as a means to societal integration.

In Kenya, the first school for the blind was established in 1946 in Thika by the Salvation Army Church, to take care of the wounded British soldiers during the Second World War. Other special schools have sprung up in the country since then. They cater for different types of disabilities.

The integration of children with visual handicaps in ordinary schools is a recent development in the education of children who have visual handicaps in Kenya. It dates back to 1972 when the first integrated programme for children with visual handicaps was established in Kajiado District with the effort of the Kenyan Government in collaboration with the Royal Commonwealth Society for the Blind (Ministry of Education and Human Resources Development, 1996). Apart from the 1216 children with visual handicaps in special residential schools for the blind, the integrated programmes have so far placed 1057 children with visual impairments into regular schools within 19 districts across Kenya (Ministry of Education and Human Resources Development, 1996).

There are a number of reasons that proponents of integration give to rationalise the need for integration. First, the dual system of education (i.e., a system that runs regular and special education as separate entities) is seen as unnecessary because children differ along a continuum of emotional, intellectual, physical and psychological characteristics in which some deviate to an extreme from the norm or average (Telford & Sawrey, 1981). Having these differences in mind and with proper planning, it can be possible to meet the unique needs of all students within a unified system of education - a system that recognises and

educational programming and services should be the main focus for the education of all children and not the few who are handicapped.

Secondly, there are no discrete sets of instructional methods - one set for special students and another set for normal students (Stainback, & Stainback, 1984). Instructional methods refer to basic instructional processes such as the development of behavioural objectives, assessment procedures, task analysis and discovery learning methods. Most instructional methods are applicable to both the handicapped and normal children. Gardener (1977) argued that: "There are no unique methods for use with exceptional children that differ in kind from those used with normal children" (P.74). The unique areas in which the exceptional child need instruction such as self-care, community living skills, mobility training, braille and speech reading can be met in a unified system designed to meet the unique needs of every student. Thus, segregation offers no advantages in terms of instruction of children with handicaps.

Thirdly, as seen by Stainback, and Stainback, (1980), special education encourages categorization and the subsequent stereotyping and stigmatization of students who are handicapped. They are opposed to the amount of time, money, and effort used to determine who is regular and who is special and what category of exceptionality each special student fits. According to them, categorization may have little educational value, if any.

Fourthly, a dual system of education fosters competition and in some cases unnecessary duplication rather than cooperation among professionals. It creates unnecessary artificial barriers between people and results in the sharing of the limited available resources and personnel (Stainback & Stainback, 1980). According to Telford and Sawrey (1981), children in need of special assistance and attention can be given help without considering whether or not they fall within prescribed categorical limits. In education, all children should be entitled to assistance if they need it irrespective of whether they are

child who is in a normal school simply because he/she does not meet the criteria for placement in a special school.

A dual system of education unnecessarily reduces the range of curricular options available to students. In the dual system, a number of curricular options have been designated as the domain of either special or regular education. For instance, most regular students are not provided access to social interaction skill training, whereas special education students do not always have access to many regular education curricular options such as typing and carpentry. Duplication of basic skill areas such as mathematics and reading is unnecessary. A unified and consolidated system can provide a broader range of curricular options to all students.

Finally, the dual system of education requires students to fit the available regular education programme or be labelled as "different", "special", or "exceptional". The regular programme should be modified if possible to suit the needs of the pupil. The education system should fit the needs of students, rather than the students fitting the needs of the educational programme. There is need to modify and adjust the regular education system to meet the unique needs and characteristics of all students. As noted by Reynolds and Birch (1982), for years, the rhetoric of both regular and special educators has centered on achieving individualization of instruction for all students. This could be achieved in the regular school with proper planning.

In short, the rationale for integration is based on the advantageous characteristics of the unified system. However, one cannot make conclusions unless studies are done to compare the behaviour of children in the integrated and specialised environments. Erwin (1993) felt that, the growing movement to include children with and without disabilities in the same classes provides a timely framework for this type of comparison. If an integrated system of education has more benefits for both the handicapped and normal child, then it

only possible solution to the education of children who are handicapped in Kenya, where their population is growing very fast and whose resources are limited.

The essential criterion of integrated education is the development and well-being of pupils who are handicapped. In a survey of children with physical handicaps, Anderson (1973) came up with the conclusion that, ordinary schooling was academically and socially suitable for many children who are physically handicapped. However, the survey did not address itself to the specific outcomes of integration, therefore, suitability here may not mean that the child will develop a positive self-concept as a result of being in contact with normal children.

Proponents of integration believe that all children with handicaps would benefit by being educated in the regular classroom. Martin (1994) disagrees with the proponents of integration and points to the high rate of academic failure and dropout to support his/her argument, that the process cannot work or benefit the child who has a handicap. The benefits to be achieved through placement would be maximized if schools provided the necessary supportive services. For integration to succeed fully there is need to provide supportive physical facilities for children who are handicapped such as appropriate buildings, toilets, wide corridors for wheel chairs, and light switches within convenient heights. Existing physical facilities would need to be modified to meet the child's physical needs. Pre-service or in-service training and workshops for teachers in ordinary schools would be necessary to enable them to cope with the needs of children who are handicapped. According to Tuttle (1987), the integration of children with visual impairments is a significant educational innovation that requires a formal plan of implementation. This plan must include training and in-service opportunities for classroom teachers, preparation of students, procedural guidelines, adequate funding for essential resources and monitoring and

2.5 Integration and Self-concept

The review of the various theories of self-concept reveal that its development is dependent on one's interaction with others, environmental setting and things in the surrounding that symbolize and facilitate certain social experiences (Mead, 1934; Gordon, 1972; Hormuth, 1990). It is also clear that the development of self-concept is related to cognitive maturation and that one continues to acquire new cognitions about the self as he/she proceeds from one stage of development to another and as his/her social experience widens (Piaget, 1967). With this in mind, the researcher felt that the different environments provided for children with visual handicaps by the regular and special school may influence the course of self-concept development differentially. The choice of a schooling environment and the general aim of providing education to the child with a handicap should be geared towards his/her positive development that include the acquisition of a positive self-concept among other personality attributes. In the current study, integration was viewed as a probable agent in developing a positive self-concept.

A positive self-concept is necessary for the full development of a person. According to Gaber (1984), a person who has a good self-concept is likely to have a good personality, while a person who has a poor self-concept is likely to have behavioural and personality difficulties. A poor self-concept and poor personality adjustment are problems a child may develop if he/she is socially isolated from his/her peers, hence the need to let the child who is handicapped to interact with his/her normal peers in a normal and less restrictive environment. This can be achieved through integration.

There seems to be no research that has directly looked at the effect of integration on the self-concept of children with visual handicaps. However, a few isolated studies have reported improvement on traits closely associated with self-concept such as self-image, self-esteem, and self-confidence, after integrating children with disabilities for some period

of integration on other factors such as peer acceptance, dependence and change of teachers attitudes on integration.

In a number of studies conducted in Britain, Hegarty et al. (1981) found that, children with physical handicaps placed in ordinary schools had improved their self-confidence, self-image, maturity, independence and behaviour in general. They also found that the same children benefited in terms of social and emotional development. These changes were attributed to the opportunities for independent action, decision making and psychological factors such as motivation. The competition in the ordinary school helps the child to be more confident, independent and motivated to do equally, if not better than his/her normal peers do.

Fifty three teachers and administrators interviewed by Janney et al. (1995) in the United States of America reported the following benefits gained by students with moderate and severe disabilities after being integrated into normal schools:

- Increased independence,
- Improved functional skills for students having moderate disabilities,
- Increased alertness and interest in the environment for students having severe disabilities,
- Acquisition of age-appropriate behaviours and tastes,
- Developing friendship, and
- Increased self-esteem.

These findings give some support to the premise that integration might be socially beneficial to the child who is visually handicapped. In the same study, students without disabilities were perceived to have grown in their self-esteem and in their acceptance of individual differences. The stated integration goals in the five selected district schools in the study by Janney and others were to provide special education services for all students with moderate and severe disabilities within age-appropriate, general education school and to provide several daily opportunities for each student to be involved in classes and other school

study was to assess the change of attitude of teachers and administrators involved in integration, it does shed some light on some of the benefits to be achieved by pupils who are integrated in the normal school. According to Tuttle (1987), integration helps the partially sighted person to develop good coping skills and adaptive behaviours.

Several researchers have examined the change processes involved in moving special education students with moderate to severe disabilities into general education alongside their normal peers (Cole & Meyer, 1991; Evans, Salisbury, Palombaro, Berryman & Hollowood, 1992; York, Vandercook, MacDonald, Heise-Neff & Caughey, 1992; Giangreco, Deniss, Edelman & Schattman, 1993; Kozleski & Jackson, 1993; Salisbury, Palombaro & Hollowood, 1993). Collectively, the findings from these studies provide a foundation for the position that such change can produce desirable results for children and schools. They also give support to the complex nature of such change. Thus, in addition to noting the positive outcomes of integration, these researchers recognized the fact that, it is not an easy task without the provision of adequate supportive services such as the training of teachers, provision of medical care and appropriate physical facilities suitable for children with all kinds of disabilities. Changes are necessary in the receiving schools if integration is to yield positive results in terms of the education and psychological well-being, including the development of a positive self-concept of the pupils involved.

Most of the 19 Kindergarten through 9th grade teachers that Giangreco and his/her colleagues (1993) studied who had integrated students in their classes began with negative initial feelings but later reported positive transforming experiences and benefits to all those involved. The change of attitude towards integration was attributed to increased and direct involvement with the pupils who had disabilities, assistance and support from special education staff and preparatory training. The teachers' changes in expectation and attitudes toward integration regarding the children involved were crucial for the success of the

of attitude toward the handicapped can make them feel socially accepted and result in a positive perception of themselves.

The findings of the study by Salisbury et al. (1993) on the inclusion of 26 students with mild to severe disabilities in general education in the elementary school over a 25 year period, indicated that the attitude of teachers towards integration shifted over time from resistance to co-operation and to overt support. These findings give support to the premise that acceptance, support and change of teachers' attitudes toward the disabled is one of the necessary conditions for the success of integration. Thus, acceptance of the disabled child in the general class by teachers and peers is important if the child is to develop a positive self-image.

One of the major objectives of integration is to increase the social interaction of the disabled with the non-disabled and hence bring about peer-acceptance. However, studies have indicated that the disabled may be exposed to a rejecting environment by their non-disabled peers (Monroe and Howe, 1971; Jones, Lavine & Shell, 1972; Goodman, Gottlieb & Harrison, 1972; Iano, Ayer, Heller, McGettigan & Walker, 1974; Levitt & Cohen, 1976). This means that, placing a child who is handicapped in a regular class offers no guarantee that the normal peers will accept him/her. Rejection by peers may have negative developmental effects on the child who is disabled.

Rejection and discrimination of the child who is visually handicapped by his/her normal sighted peers would imply minimal social interaction - a situation that can lead to the development of a low self-concept. Adequate social interaction between disabled children and their normal peers and teachers in the integrated environment is a prerequisite to acceptance and change of the negative attitudes which some pupils and teachers may have towards these children. As noted elsewhere in this chapter, Mead (1934), Gordon (1972) and Hormuth (1990) observed the importance of social interaction and social experience in

expectation that the level of social interaction and the type of people the child interacts with will influence his/her self-concept in a unique way.

A child builds up an image of himself/herself from comparisons with others, from his/her success and failure and from his/her perception on what others believe about him/her. The self-concept of a child who has a visual handicap may improve considerably when he/she is put in the normal school where he/she will have a chance to compete and compare himself/herself with his/her normal peers. This integration makes him/her feel that people do not think he/she is significantly different from others. He/she feels accepted, wanted and part of the larger social group.

Differential treatment of children with handicaps may affect their self-concept negatively. In an analysis of blind children and adults, Tuttle (1984) attributed their lack of confidence and adjustment to lack of adequate interaction with sighted people and the attitude of the sighted people about blindness. Thus, according to Tuttle, change of peoples' attitudes towards the disabled is important if the child is to benefit from interaction with his/her normal peers. The child who is handicapped must feel accepted and wanted for him/her to develop a positive image of himself/herself.

According to Kirk and Gallagher (1986), children who are physically handicapped have problems with their self-concept as well as social and emotional adjustment because their participation in activities and jobs is limited and face all kinds of discrimination. This can be minimized by allowing them to grow up in an integrated environment.

Hegarty et al. (1981) found that children with physical handicaps become better adjusted when placed in ordinary schools, a factor, which can have a positive effect on their self-concept. A handicapped child who adjusts well in the regular school may easily develop a feeling of self-worth as compared to a child who fails to adjust to the same

According to Mwamwenda (1989), an understanding of what is involved in self-concept, and what it is, are essential if education is to achieve its ultimate goal - the development of man's fullest possible potential. This is also true when it comes to helping the child who is handicapped to use his/her limited potential maximally. Purkey (1970) states that: "Teachers should consider self-concept as a vital and important aspect of learning and development which the school, through its educational processes, should seek to promote and to foster in every child" (p. 48). In view of the foregoing, it was found necessary to investigate whether integration helps the child who is handicapped to develop positive and realistic attitude about himself/herself. A positive attitude towards oneself is likely to help the child to adjust to his/her environment and develop a healthy personality and have a realistic approach to life in general.

In conclusion, it should be noted that the improvements in self-concept and personality reported in developed countries may be due to prior planning, the provision of adequate facilities both for the handicapped and normal children and the acceptance and support accorded to the handicapped by teachers and normal children. Many of our schools lack adequate facilities even for the normal child, therefore, such findings may have no backing in Kenya. For instance, there are cases of children with physical handicaps in our schools who seriously need wheel chairs, which the schools nor their parents can afford, let alone providing for other needs. Further, the traditional negative attitude towards children with handicaps may not have changed as much in Kenya (Linden, 1994) as may be the case in developed countries where much of the research has been conducted. This implies that the child in the mainstream may be ignored, neglected, and discriminated against - factors that may have a negative influence on their self-concept. Since the Kenyan environment is different from that of the developed countries, the current research was found necessary to

2.6 Benefits of Self-concept

The effect of a positive self-concept, which is presumed to emanate from wide social interaction opportunities such as the ones that may be provided by the integrated school environment, on other variables cannot be underestimated. In this view, it was found necessary to mention and discuss some of the studies that have tried to relate self-concept to personality, psychological and other variables among children with visual impairments, children with other disabilities and normal children.

Self-esteem is widely recognized as a central aspect of psychological functioning and well-being (Jahoda, 1958; Kaplan, 1982; Rosenberg, 1985). Self-esteem has been shown to be related to many psychological as well as behavioural variables. For instance, compared to adolescents with low self-esteem, high self-esteem youth are less depressed, are more satisfied with life and they rank lower on psychological and psychophysiological measures of anxiety, on overt aggression and irritability (Rosenberg, 1985). Hence, self-esteem seems to be related to important aspects of psychological well-being. In view of the mentioned findings, it may be expected that segregation into special schools may have negative implications on feelings of self-worth among children who are handicapped. Such feelings may negatively influence the child's psychological well being and his/her personality in general.

A study by Kershner (1990), found self-concept to be positively related to patterns of successful achievement in spelling, arithmetic and written language, but not in visual word recognition. The study involved 25 children with learning disabilities in the auditory-linguistic realm over two academic years. These results were interpreted as support for the importance of self-concept as a possible cause of academic achievement. This means that anything that promotes the self-concept of children such as opportunities to interact with

In a study of 36 adults with visual impairments, Beach, Robinet and Hakimson (1995) found self-esteem to be related to three self-report measures of skills, namely: dependence on others, perceived difficulty, and motivation in performing certain skills. In the same study, educational level was found to be significantly related to self-esteem. Persons with higher self-esteem were found to have completed significantly more formal education than did those with lower self-esteem. This is consistent with Winefield and Tiggermann's (1985) findings that students with higher self-esteem are likely to go on to further levels of formal education than those with lower levels of self-esteem.

According to Hammachek (1979), a positive self-concept will allow a person to take risks, tolerate ambiguity, face fears, and engage in many activities, whereas a low self-concept will create intense shyness, fear of adults and peers, overinflation of self, sarcasm, and resistance to experimentation. Low self-esteem is associated with lack of self-confidence, shyness, value conformity, overdependence on others and less creativity (Coopersmith, 1967; Rosenberg, 1965; Linton & Graham, 1959; Wells & Marwell, 1976). Thus, integration of children with visual impairments into ordinary schools which is presumed to offer an opportunity for social interaction which is crucial for the development of a positive self-concept should be considered.

Comparing boys in the fifth and sixth grades on different levels of self-esteem, Coopersmith (1967, 1971) found that the group which expressed a high level of self-esteem was leading class discussions more often than listening. They expressed their own opinions more than other groups. They were not afraid of disagreement and were not particularly sensitive to criticism. They also expressed a comparable low level of anxiety, and had fewer psychosomatic problems than other groups. It was also found that children in this group had the best relations with their parents as expressed by the degree of parent

high behaviour standards. As a result of this, their children set higher academic goals than other groups.

Stangvik (1979) summarised the research of various investigators on the association between self-esteem and other variables as follows:

Self-esteem has been associated with analytical thinking which permit the individual to separate a problem into component parts; with creative ability; with the ability to participate in discussions and express a point of view; with persistence in performing tasks and with the ability to maintain a constant perceptual framework in the face of confounding conditions. Persons with high self-esteem are likely to be leaders in their social groups, more concerned about public affairs than personal problems, and less sensitive and anxious. They are generally more effective and in general achieve more at a given level of intelligence than do persons who take a more negative view of themselves. In terms of affect, persons with high self-esteem are generally more expressive, and are less likely to be rated as unhappy, destructive, shy, embarrassed or retiring. They are less upset by the criticism of others, and more inclined to accept their own views of what is correct and appropriate. Self expectations and the expectations of others exert a powerful influence upon the level of performance achieved. Higher estimates of our own powers lead to higher expectations of success which appear to evoke greater efforts and focus, eventuating in higher levels of performance. Relating self-attitudes to academic performance leads us to the view that positive attitudes represent a self-fulfilling prophecy of success; negative attitudes eventuate in anticipation of failure and perceived lack of ability which eventuate in lower performance (pp.4-5).

These research findings leave no doubt about the importance of positive self-esteem or self-concept in determining other behavioural patterns that are crucial for our well-being. They also show the value of a positive self-concept to the child with a handicap in preparation to societal integration.

2.7 Social Interaction of Children with Visual Handicaps in Special and Ordinary Schools

As noted in the theoretical background on self-concept, social interaction is one of the major determinants of self-concept. The type and level of social interaction in the integrated school environment varies from that found in the special school. The special school is only for pupils who are handicapped and for this reason the child who is confined

difficulties and consequently identify less with them. In addition, the child with a handicap placed in the special school environment lacks social contact with normal children and experiences minimal and inadequate social contact because of the small number of children to be found in any single special school. This may imply that there will be less social interaction between children in the special school - a factor that may have a negative effect on the way they perceive themselves.

The ordinary school is endowed with a richer social environment and wide social experiences. If the child with a visual handicap placed in such a school feels accepted and wanted by his/her normal counterparts he/she will enjoy a greater social interaction and experiences as compared to the child in the special school. This kind of social interaction and experience may have a positive effect on the way he/she perceives himself/herself. If he/she does not feel accepted and wanted his/her interaction and social experiences will be with the few who are handicapped like him/her or he/she may withdraw from social interaction. Alternatively, he/she may interact with only a few normal children who show acceptance and sympathize with his/her handicapping situation. This would imply that the level of social interaction he/she is experiencing would somehow help determine his/her self-concept.

In the same way, the kind of teacher-pupil interaction to be found in the ordinary school and the special school may vary. This variation may have a differential effect on the child's self-concept. In most cases, the teachers in the special schools would have undergone training in special education and consequently may understand and accept the child better, treat him/her kindly, and try to help him/her as much as they can. The teacher-pupil ratio in the special school is generally higher than in the ordinary school. This would imply less teacher-pupil interaction in the ordinary school - a situation that may result in the

Most of the teachers in the ordinary school have not had training in special education and are therefore, less skilled in handling children with handicaps. These teachers may not clearly understand the kind of problems the child is undergoing, consequently, they will not give him/her adequate assistance. For example, the teacher who does not have any training in special education may not be able to judge the visual acuities of children with visual impairments and the size of print they can read without straining. He/she may also not know that verbalizing whatever he/she writes on the blackboard is necessary for the child who has difficulties with sight. If the child does not get adequate support and acceptance from the teachers, he/she may develop a feeling of unworthiness that may influence his/her self-concept negatively.

It is in this context that the researcher saw the need to investigate whether pupil-pupil and teacher-pupil interaction in the two different schooling environments can cause variations in the development of self-concept of children with visual handicaps.

2.8 Gender Differences in Self-concept among Children with Handicaps

In the African traditional culture, expectations for each sex were different and depended on the role one was expected to play in the society. Men were expected to play economic roles while women were expected to play domestic and other feminine roles. As a result of this, when formal schooling was introduced in Africa, there was much emphasis on the education of the boy because he/she was seen as the potential head of the family and a bread winner while the girl was prepared for feminine roles and successful marriage (Muola, 1990). This emphasis is still held by some people. These stereotyped expectations in relation to sex roles may tend to be reflected in the attitudes of parents and society toward the education of children who are handicapped. Such differences in attitude, treatment and expectations may influence the self-concept of male and female children who are visually

way one perceives himself/herself is a function of the way he/she regards himself/herself and his/her interpretation of how he/she is perceived and treated by others.

The above situation coupled with the remnants of the African traditional attitudes toward disabled children in which they were seen as a curse from God, totally isolated or even killed in some societies, may have a different effect on the self-concept of children of different sexes.

In Africa, women may have difficulties in developing a positive self-concept because of the cultural bias that has for a long time tended to hold them in low esteem. In his case, specific efforts to enhance self-concept among them may be important. A study by Linden (1994) on children with handicaps among the Embu community in Kenya, revealed that there is cultural bias against the handicapped. This makes persons with handicaps not to be accepted by the non-handicapped in society, resulting to a lowered self-concept. Similarly, cultural bias against the girl child may result in a lowered self-concept.

Most of the studies evaluated by the researcher have addressed themselves to sex differences in self-concept among normal children but not among the visually handicapped. For example, in a study of 432 standard seven primary school pupils, Maritim (1979) reported a significant difference in academic self-concept between boys and girls. Girls had a lower academic self-concept as compared to boys. He/she attributed this finding to the teachers' low perception of the ability of girls and the fact that girls perceived themselves as less competent as compared to boys. Although this study was conducted with normal children, it may imply that the self-concept of girls with visual handicaps may be similarly affected by the different perceptions and expectations from teachers and the people around them. The girls' perception of their abilities and aspirations may also affect their self-concept negatively.

Simmons and Rosenberg (1975) found that the self-esteem of normal boys and girls

concept. The adolescent girls were less certain about themselves and their ideas. Feelings about themselves tended to vary and change rather easily. According to Verkuyten (1994), such uncertainty about self-concept may be expected during adolescence when all that was taken for granted about the self is questioned. Doubt and uncertainties may be experienced due to dramatic physical and psychological changes, altered social experiences and changing demands from society. This implies that the child's global self-concept in early adolescence may be yet to stabilize and depends on many factors other than academic achievement which gives the child a feeling of self-confidence. However, according to Moeller (1994), global self-concept begins to stabilize for some children when they are in grade two.

In a study of 29 visually impaired and 29 sighted children Zurich and Edwith (1965) reported sex differences in self-concept. They used a self-concept scale developed by Lipsitt (1958). Among the subjects who were visually handicapped, girls rated themselves higher than boys on the concepts of friendly, happy, likable, trusted, cooperative and cheerful ($p < .01$). The concept of polite was the only one on which boys rated themselves higher than girls. This implied that in general, the self-concept of children with visual handicaps was higher for girls than for boys. In the same study, sighted boys rated themselves higher than the sighted girls on the concepts of likable, kind, happy, honest, trusted and proud ($p < .01$). The sighted girls rated themselves higher than the sighted boys on the concepts of good, courteous, obedient and clean ($p < .01$). Sighted boys rated themselves higher than sighted girls on over half of the concepts, implying that the self-concept of boys generally tended to be more positive than that of girls.

In a research on self-esteem among minority and majority youth in Netherlands, Verkuyten (1995) found that the self-esteem of boys was significantly higher than that of

$p < .05$) in the same study. The sex differences in self-concept reported in the studies mentioned here were expected to be reflected in general among children with handicaps elsewhere and children with visual handicaps in this study.

2.9 Summary

Theoretical literature on self-concept as a personality construct has shown that self-concept development is determined by interaction, cognitive development, environment, and objects among other factors. A review of the literature has shown that there is some improvement in self-concept and other personality attributes resulting from integration. However, the research conducted is limited and has been done mostly in developed countries, therefore, the findings may not be conclusive and applicable to the Kenyan situation. Hence, the need for further study. Most of the studies that have been reviewed indicate sex differences in self-concept among normal children except one study. It appears that, little research has been done

CHAPTER 3

METHODOLOGY

3.1 Introduction

In this chapter, a brief description of the research design adopted in this study is discussed. This is followed by a description of the population and sample chosen for the study. Then, a description of self-concept, pupil-pupil and teacher-pupil interaction scales are given. Finally, the procedure of data collection and analysis are explained.

3.2 Research Design

This is mainly a correlational comparative ex post facto study, which was designed to determine whether placement of children with visual handicaps in ordinary schools affects their self-concept. This approach makes use of a naturally occurring experiment. In this design, it was assumed that one of the sub-samples had already been naturally subjected to treatment (independent variable) in the form of integration into ordinary schools, whereas the other sub-sample had not. By using the two groups, children with visual handicaps in ordinary schools and those in special schools, the researcher tried to determine whether placement and social interaction (independent variables) are related to self-concept (dependent variable). Four more variables, that is, gender, period of placement, age and class level were introduced to determine whether they have some differential effect on the development of self-concept.

3.3 Population

The target population was standard 5 through standard 8 pupils, aged between 10 and 19 years who had visual handicaps. There are seven primary schools for the blind in

Education and Human Resources Development, Special Education Unit, 1996). There are 19 integrated programmes for the visually handicapped that have been initiated in various districts in the country. These programmes accommodate 1056 pupils (Ministry of Education and Human Resources Development, Special Education Unit, 1996). It is necessary to note that the Ministry lacked up to date information on individual schools participating in the integrated programmes. However, this information was available in the district integrating centres from which the programmes were being coordinated. The study focused on children with visual handicaps because most of the integrated programmes already in operation in the country had targeted children with that specific handicap. In the selected school and age levels were pupils who could read and comprehend the self-concept, pupil-pupil, and teacher-pupil interaction questionnaires used in this study. In addition, the number of children in primary schools was larger than that in secondary schools because a good number of pupils drop out after completing their primary education or join vocational schools. The availability of a larger number of children and integrated programmes helped the researcher to get the desired sample without much difficulty. Moreover, children at the selected school level had stayed in the schools from 3 to 11 years; therefore, it was presumed that, the school environment had some influence on their self-concept.

3.4 The Sample

The study sample comprised of 194 (100 boys and 94 girls) children with visual handicaps, 97 from special schools and the other 97 from integrated schools. The study covered seven districts (Nakuru, Nairobi, Kisumu, Homa Bay, Keiyo, Bungoma and Meru) located in five provinces (Nairobi, Eastern, Rift valley, Western and Nyanza). The age and period of placement of the subjects in various schools ranged between 10 and 19 years and

The seven districts were randomly selected out of the 19 districts that had integrated programmes for children with visual handicaps. Since random selection and assignment of subjects were not feasible in this category because of the small number of children involved in the programmes, all the available subjects were included in the study except those who were in schools that were not accessible to the researcher. Some of the schools that could not be reached were in the Kerio Valley of Keiyo District because of inaccessibility, while others had closed down due to problems of banditry in the area. Others were in Homa Bay, Kisumu and Bungoma Districts where distance and means of transport were inhibitive. The researcher managed to reach a total number of 97 pupils in this category. Out of the 97, there were 87 partially sighted and 10 totally blind children.

Two special schools for the blind (Kibos in Kisumu District and St. Lucy's in Meru District) were randomly selected out of the seven to participate in the study. To match, the number already available in the integrated schools, an equal number of children was randomly selected, 87 partially sighted and 10 totally blind. The number of partially sighted pupils in the participating schools was not big; therefore, only a few were left out.

Some of the schools did not have up to date records on pupils' visual acuities and for this reason, subjects were not categorised according to the degree of visual impairment as intended initially. This left the researcher with only two broad categories of visual impairment, that is, partially sighted and totally blind. Tables 3.1, 3.2, and 3.3 present additional information on the sample. Given the diversity of the area covered and the population of children with visual handicaps in the integrated and special schools, the study

Table 3.1**Information on the Sample in Integrated and Specialised Settings.**

Subject	Integrated (N=97)		Special (N=97)		Total
	Males	Females	Males	Females	
Class 5	10	13	10	9	42
Class 6	12	11	15	10	48
Class 7	17	12	10	14	53
Class 8	13	9	13	16	51
Low Vision	45	42	42	45	174
Totally Blind	7	3	6	4	20
Total	52	45	48	49	194

Table 3.2**Information on the Low Vision Sample.**

Subject	Integrated (N=87)		Special (N=87)		Total
	Males	Females	Males	Females	
Class 5	7	12	8	7	34
Class 6	11	10	12	10	43
Class 7	16	11	11	9	48
Class 8	11	9	13	16	49
Total	45	42	42	45	174

Table 3.3**Information on the Totally Blind Sample.**

Subject	Integrated (N=10)		Special (N=10)		Total
	Males	Females	Males	Females	
Class 5	3	1	2	2	8
Class 6	1	1	3	0	5
Class 7	1	1	1	2	5
Class 8	2	0	0	0	2
Total	7	3	6	4	20

3.5 Instrumentation

Three self-report measures were used to obtain data in the present research. A self-concept scale was administered to measure the pupil's level of self-concept. Two other measures, that is, the pupil-pupil interaction scale and the teacher-pupil interaction scale

other pupils and his or her teachers in the school. A description and discussion of each of these measures follow.

3.5.1 Self-concept Scale

It should be noted that there is no agreement in the type of instruments and techniques to be used in the assessment of self-concept (Wylie, 1961) and that there is no one particular approach that seems to capture in total, the unique nature of the self-concept (Hormuth, 1990). Therefore, the selection of any one approach depends on one's theoretical orientation and understanding of self-concept.

Self-concept is private and beyond direct observation by the experimenter. Therefore, in order to infer and index constructs involving a subject's self-concept one must use some form of self-report response made by the subject himself/herself. Self-report measures are one of the commonly used techniques in the assessment of self-concept because it is believed to be inaccessible to the experimenter's observation. The basic assumption underlying self-report scales is that what the individual reports about himself/herself reflects the way he/she perceives himself/herself and the way he/she wants his/her significant others to perceive him/her.

A five-point likert-type rating scale (Appendix A) developed by the researcher using existing scales as a guide was used to measure the subject's general or global self-concept. The self-concept scale is comprised of a modification of items mainly from the Piers-Harris Children's Self-concept Scale, a few items from the Tennessee Self-concept Scale and several others constructed by the researcher. The total number of items is 80. A pilot study was conducted on a randomly selected sample of 50 visually impaired pupils from Thika Primary School for the Blind and 49 normal pupils from Mama Ngina Primary School in Nakuru Municipality. All the 99 pupils were sampled from standard 5 through

research. The split-half reliability correlation coefficient reported for the self-concept scale was .94. This coefficient is high, therefore, the instrument was considered as a sufficient measure of self-concept. Since the Piers-Harris Scale was developed for use with children from 8 to 18 years of age, it was found suitable for the selected sample in the current research. Hence, a substantial number of the items in the scale were adapted with modification for this research. The Piers-Harris Children's Self-concept Scale was developed by Ellen V. Piers and Dale B. Harris in 1969. The original scale was composed of 80 items and is fairly well established. The modified items from this scale adapted the five-point Likert-type responses instead of the original "yes" or "no" responses.

Given that the cultural background and understanding of the subjects in this study may be different from that of the American children for whom the Piers-Harris scale was originally developed, some alterations were made on some of the items. Unfamiliar and less simpler words or expressions were substituted in the modification of some of the items. For example, the original item number 78 "I think bad thoughts" was modified to read "I think of bad things" (item number 67 in the current scale). A few items from the original version were dropped. For example, item number 29 "I have pretty eyes" was dropped because some of the subjects in the present study were totally blind and had no idea of how pretty eyes looked like. According to the original version of the Piers-Harris Scale, six components of personality were covered. These components are: (i) behaviour, (ii) intellectual and school status, (iii) physical appearance and attributes, (iv) anxiety, (v) popularity and (vi) happiness and satisfaction. For the purpose of this research, only one score was computed for each child to give a measure of his/her general or global self-concept regardless of the more specific areas represented in the scale. Scores in the specific areas may be necessary in detailed clinical interpretation whereby they would indicate what kind of help the child needs and where to focus intervention efforts. This is

The Tennessee Self-concept Scale from which a few items were adapted was developed by William H. Fitts in 1964. The original version comprised of 100 items with five responses each. Utmost care was taken to ensure that the original meaning carried by the items that were modified did not change. The highest score in the scale is five(5) while the lowest is one (1) per item.

3.5.2 Pupil-pupil Interaction Scale

This is a self-report scale (Appendix B) developed by the researcher to measure the level of interaction between the child with a visual handicap and other children, both in the special and in the ordinary school, as indicated by the opportunities of social contact between the child with a visual handicap and other children. The scale was expected to tap this variable irrespective of whether the subject interacts with children who are visually handicapped (as in the case of special schools) or normal children (as in the case of integrated schools). This scale is comprised of 16 items. The subject was expected to choose the response that best described the extent to which he/she interacted or related with his or her fellow pupils. A split-half reliability correlation coefficient of .67 was reported for this scale after the pilot study.

3.5.3 Teacher-pupil Interaction Scale

This is a self-report scale (Appendix C) developed by the researcher to measure the level of interaction between the child who is visually handicapped and his or her teachers both in the special and in the ordinary school. The scale is expected to tap this variable irrespective of whether the child is placed in a special or in an ordinary school. The index of interaction reflects the opportunity the child has had to come into social contact with his/her teacher(s). This scale is comprised of 16 items. The subject was expected to choose

or her teachers. The reported split-half reliability correlation coefficient was .78 after the pilot study.

3.6 Data Collection

The three measures discussed in this chapter were administered to determine the subjects' levels of self-concept, interaction with other pupils and with teachers. The administration of the questionnaires involved explaining the procedure, reading the instructions to the subjects and making sure they understood the testing procedure, and reading through each item together with the respondents and allowing them time to give their responses. The researcher recorded the responses for the totally blind subjects and those who had difficulties in writing down their responses. This was in contrast with the previous plan in which the partially sighted subjects were expected to read the items and record their responses. It became necessary to guide the subjects through the questionnaires upon realisation that not all partially sighted pupils would be able to read all the items with ease and that some may not be courageous enough to ask questions when faced with difficulties in understanding some of the items.

The exercise was carried out in small groups of between two and five subjects per session for the partially sighted. Those who were totally blind were handled individually. This proved to be a tedious exercise, therefore, research assistants were used to assist in the administration of the questionnaires after a thorough briefing on the procedure. The research assistants consisted of itinerant teachers and programme coordinators in the integrated

3.7 Data Analysis

The data obtained was analysed using the Statistical Package for the Social Sciences (SPSS) Windows 95 Version. The two-tailed t-test for mean differences was used to test whether there is any difference between the self-concept of:

- (i) children with visual handicaps in integrated and special schools,
- (ii) male and female children with visual handicaps in integrated and special schools,
- (iii) children with visual handicaps placed in special schools for a shorter period of time and those placed for a longer period of time,
- (iv) children with visual handicaps integrated for a shorter period of time and those integrated for a longer period of time, and
- (v) younger and older children with visual handicaps.

Pearson's product-moment correlation analysis was used to test the relationship between:

- (i) self-concept and the level of pupil-pupil interaction,
- (ii) self-concept and the level of teacher-pupil interaction, and
- (iii) the level of pupil-pupil and teacher-pupil interaction.

Analysis of variance was used to test whether there were differences in the self-concept of children with visual handicaps in different classes and whether the interaction effects of gender, period of placement, age level, class level and placement on self-concept were significant.

CHAPTER 4

RESULTS AND DISCUSSION

4.1 Introduction

In this chapter, the results of the data analysis, implications and discussion of the findings are presented. The findings and a discussion on the differences between the self-concept of children with visual handicaps integrated in normal and special schools are presented first. This is followed by the results and a discussion on gender differences in the self-concept of children in integrated and special schools. Thirdly, a presentation of the results and possible interpretation of the implications of the period of placement either in a special or in an integrated school is given. Fourthly, the findings on the hypothesized relationship between self-concept, pupil-pupil interaction and teacher-pupil interaction are presented. Fifthly, self-concept differences among younger and older children are dealt with. The final results to be presented and discussed are on the differences between the self-concept of children in different classes. The chapter ends with a brief summary of the findings.

4.2 Differences between the Self-concept of Children with Visual Handicaps in Integrated and Special Schools

The first null hypothesis stated that, "there is no significant difference between the self-concept of children with visual handicaps in intergrated and those in special schools". A two-tailed t-test was used to test this hypothesis. The results are presented in Table 4.1. According to the results, no significant difference was reported for the whole sample although the mean score for the integrated sample was higher. Therefore, the null hypothesis was accepted. Further analysis was carried out on selected sub-samples with the aim of

Table 4.1

A t-test Analysis for Differences between the Self-concept of Children with Visual Handicaps in Integrated and in Special Schools.

Group	Integrated Schools			Special Schools			T-test	
	Mean	S.D	N	Mean	S.D	N	T-value	P
Whole Sample	336.36	28.00	(97)	329.66	30.49	(97)	-1.59	.11
Low vision Sample	336.43	27.00	(97)	331.39	31.48	(87)	1.11	.27
Totally Blind Sample	335.80	29.57	(10)	314.60	12.93	(10)	2.08*	.05
Class 5	323.92	19.28	(24)	317.37	24.61	(19)	-.95	.35
Class 6	342.57	29.40	(23)	323.68	37.01	(25)	-1.96	.06
Class 7	334.89	32.54	(28)	333.13	23.54	(24)	-.23	.82
Class 8	345.32	24.56	(22)	340.00	30.48	(29)	-.69	.49

* $p < .05$

of the subjects held constant. As it can be seen in Table 4.1, the results revealed no statistically significant difference between the self-concept of children with low vision in integrated and in special schools. On the other hand, the self-concept of totally blind children in integrated schools was significantly higher ($P = .05$) than that of totally blind children placed in special schools.

Group comparisons between the self-concept of children in different class levels revealed no statistically significant differences at the alpha level of .05 as it can be seen in Table 4.1. The results also indicate that in all the cases the mean scores for subjects in the integrated sample were higher than those for subjects in special schools.

In general, these results suggest that the self-concept of children with visual impairments is not affected by their placement in integrated or in special schools. Moving

without necessarily affecting the way he/she perceives himself/herself. Although these children are in a special setting, they do interact with other children, normal or otherwise when they have inter-school activities, when they go to church, and during holidays when they are at home. The remaining vision of children who are partially sighted facilitates normal or near normal interaction with other people, therefore, they may not see and rate themselves as being different from their counterparts in the integrated setting.

The situation is different with the totally blind child who is placed in an integrated schooling environment as compared to the one placed in a special schooling environment. It is possible for the blind child who is placed in a special school to feel that he/she is being treated differently because of his/her impaired vision and see and rate himself/herself as being different from other children. The totally blind child in a boarding special school has limited opportunities for interacting with other people because he/she spends most of his/her time in the institution. This may have a negative effect on the development of his/her self-concept considering, that social interactions are crucial in the formation of self-concept.

Most of the partially sighted children who are the majority in special schools may choose to interact among themselves leaving out the totally blind child. This may make the child to feel isolated, unaccepted, unwanted and have a negative impact on his/her self-concept. On the other hand, the blind child in the integrated environment has an advantage of interacting with many sighted children and adults. As a result of this interaction, he/she may not think or evaluate himself/herself as being different from other people. This is perhaps why totally blind children in integrated schools tended to have a significantly higher self-concept than those in special schools.

When the totally blind child is placed in a special school and treated with sympathy he/she may perceive it as an admission that he/she is different from other children and this

accept him/her so as to develop a positive feeling about himself/herself. Moving the blind child into a special school away from the family at an early age may be understood to mean that he/she is not an important and a wanted member of the family and hence the apparent low self-concept. On the other hand, the self-concept of the totally blind child in the integrated environment may not be negatively affected if the people around him/her treat him/her positively and with care and love. This is perhaps what could be the case with the blind child in the integrated school environment.

According to Tuttle (1984), lack of sight makes the simplest daily tasks difficult or impossible and may cause a devaluation of self, and the pity shown by well meaning people reinforces the lowered self-esteem. The self-esteem of the totally blind child could be lowered further by placing him/her in a special school where he/she only interacts with children who have a similar impairment.

The lack of outright influence of the integrated schooling environment on the self-concept of children with visual impairments can be attributed to lack of proper planning, inadequate facilities and unpreparedness of the ordinary schools to accommodate them. Many of the schools that accommodate these children lack facilities such as braille learning materials, braille machines and magnifying devices. When children are identified as being visually impaired they are placed in their home schools without caring about whether the schools are adequately prepared for them or not. Most of these schools may not have a single teacher trained in special education, therefore, the child will rely on the programme coordinators who visit children in the programme occasionally to help and assess their special needs. As observed during the research in some of the areas, the coordinators visit these children once in a month or once in a school term.

Given these shortcomings, these children will definitely face difficulties in their day to day operations. If these children are not helped out of these difficulties they may feel

According to Hammachek (1979), self-concept can develop from a feeling of belonging, worthiness and competency. The individual needs to feel liked, cared for, and being recognised as a unique person. Recognition of what the child can do may tend to enhance his/her self-confidence and eventually his/her self-concept. This may be lacking in integrated schools where the class teachers are dealing with large numbers of children. The above situation could be one of the reasons why the self-concept of children with visual impairments in integrated schools was not significantly different from that of their counterparts in special schools despite being surrounded by many normal children and adults. This suggests that other factors apart from the presence of normal people are necessary for the development of a positive self-concept. Such factors were beyond the scope of the current study, but they can be considered in future research endeavours.

The above state of affairs is a contrast to what may be happening in developed countries where integrating schools are adequately equipped and prepared to take the challenges that go along with the integration of children with disabilities in ordinary schools. This may account for the gains reported in these countries in self confidence, self-image, maturity, independence and self-esteem among other personality traits after integrating children with various disabilities in ordinary schools (Hegarty et al., 1981; Giangreco et al., 1993; Salisbury et al., 1993; Janey et al., 1995). This leads to the conclusion that something has to be done to make the integrating school environment conducive and accommodating for the integrated programmes already in place to yield positive results in terms of the child's personality and academic performance.

Lack of influence of the schooling environment on self-concept can also be attributed to the possibility that self-concept stabilizes as early as the age of 12 years (Piaget, 1967; Bem, 1972). Change in self-concept may be insignificant after the child forms a stable

reported no significant difference between the self-concept of younger and older children in the sample studied.

The partially sighted child may not show significant signs of impairment unless carefully observed. If such a child is placed in a normal school he/she may go unnoticed by fellow pupils and teachers who are not directly interacting or dealing with him/her. This lack of attention may be understood by the child to imply neglect and rejection. Consequently, the child's self-concept will not improve. On the contrary, the presence of a totally blind child in a normal school will draw the attention of everyone. Thus, the teachers and fellow pupils will tend to show concern over this child's frustrations, desires, and interests and also to be in close relationship with him/her. This show of concern may have a positive effect on the self-concept of these totally blind children in the normal school as indicated by the results.

The totally blind child in the special school may receive little concern and attention from fellow pupils who also have their own difficulties to think about. The teachers' attention in these schools is focused on many blind pupils, therefore, the individual child may not receive as much attention as the one in an integrated school. Note that, attention here is not limited to the classroom setting only. This is another possible explanation to the reported significant difference between the self-concept of totally blind children and lack of significant difference between the self-concept of children with low vision in integrated and in special schools.

4.3 Gender Differences in the Self-concept of Pupils in Integrated and Special Schools

The second hypotheses stated that, "There is no significant difference between the

schools'. An analysis of the two-tailed t-test was carried out to test the hypothesis. The results are presented in Table 4.2.

Table 4.2

A t-test Analysis for Gender Differences in Self-concept.

Group	Males			Females			T-test	
	Mean	S.D.	N	Mean	S.D.	N	T-value	P
Whole Sample	334.50	27.39	(100)	331.43	31.44	(94)	.72	.47
Integrated Sample	341.12	25.52	(52)	330.87	29.96	(45)	1.80	.08
Special Sample	327.33	27.80	(48)	331.94	33.04	(49)	-.74	.46

Table 4.2 indicates that there were no significant differences in the self-concept mean scores for boys and girls, therefore, the null hypothesis was accepted. However, the mean scores for boys were slightly higher than those of girls both in the whole sample and the integrated sample. The mean self-concept score for girls was slightly higher than that of boys for subjects in special schools. This can be interpreted to imply that, the self-concept of children with visual handicaps may not necessarily be influenced by gender. This finding failed to confirm the expected differential effect of gender on the self-concept of male and female pupils with visual impairments. The finding does not also support the results of studies that have reported gender differences in self-concept among normal children (Maritim, 1979; Verkuyten, 1995). These studies found the self-concept of boys to be generally higher than that of girls. The finding does not also support the study by Zurich and Edwith (1965) on 58 children, 29 of them with normal sight and 29 with visual impairments. In this study girls with visual impairments were reported to have a relatively higher self-

The findings in this study can be partly attributed to the changing attitudes towards children of different sexes. The clamour for equality and the recognition of the rights of women and girls might have resulted to a more or less equal treatment of children of different sexes. This change of events may imply that the female child no longer perceives herself as being different from the male child. If social interactions and treatment from others do not imply discrimination between children of different sexes, their self-concept will equally be influenced. Today, girls are expected to work as hard as boys and to compete equally with them for the limited opportunities in education and in the job market. Consequently, the girl child may not perceive herself as being different from the boy child. This is different from the traditional cultural practices that tended to encourage and perpetuate gender differences. This practice could have made children of different sexes feel and evaluate themselves as being different from each other depending on their prescribed gender roles.

The sample studied was not very big and thus, gender differences between the self-concept of children with visual handicaps cannot be ruled out totally. Again, this is one out of a few studies that have tried to establish gender differences among children with visual impairments since the researcher did not have evidence of previous studies on the same except one (Zunich & Edwith, 1965). Thus, further research may be necessary before making definite conclusions.

4.4 Differences in the Self-concept of Children Placed in Special Schools for a Shorter Period of Time and those Placed for a Longer Period of Time

The third hypothesis stated that, "there is no significant difference between the self-concept of children with visual handicaps placed in special schools for a shorter period of time and those placed for a longer period of time". The two-tailed t-test was used to test

Table 4.3

A t-test Analysis for Differences in Self-concept among Children Placed in Special Schools for a Shorter Period of Time and those Placed for a Longer Period of Time.

Short Placement (N=39)		Long Placement (N=58)		T-test	
Mean	S.D.	Mean	S.D.	T-value	P
318.62	28.66	337.09	29.65	-3.05*	.003

* $P < .01$

From Table 4.3, it can be seen that the mean self-concept score for children placed in special schools for a longer period of time (7-11 years) was significantly higher ($P < .01$) than that of children placed for a shorter period of time (3-6 years), hence the null hypothesis was rejected. These findings imply that the longer the child stays in the special school the more likely his/her self-concept will improve.

This finding was contrary to the expectation that continued stay in the special setting may have a negative impact on the child's self-concept. Some explanations can be given for this interesting trend. The child with visual impairment in the ordinary environment may be faced with rejection by sighted persons who might not understand his/her visual limitation. When this child is placed in a special schooling environment together with children who have the same problem and with teachers who understand his/her predicament, his/her self-concept may slightly improve. This explanation may be understood to imply that the show of acceptance and understanding by others is important but not necessarily that special schools are generally conducive to the development of a positive self-concept.

The child with visual impairment in the normal environment will measure himself/herself with the standards of normal children and find that he/she is far much below

environment together with children experiencing the same problem, he/she may realize that he/she is not the only one with visual impairment problems. The child will then measure and compare himself/herself with children who are like him/her or worse. This could possibly boost his/her feeling of self-worth after staying in the special school for some time and even after realizing that there are children who are worse than him/her.

Hormuth (1990) asserts that changes in the social and physical environment of the child often lead to change in self-concept if the new environment is not consistent with the present self. This is what may happen for the child who moves from a normal environment to join a special school.

Most of the children enrol in special schools at an early age (for example, some enrol in pre-primary classes while others enrol in class one when they are about 7 years old) when their self-concept is yet to stabilize or is still undergoing change. For this reason, by the time they are as old as 15 years or more, one may notice an improved change in their self-concept, not necessarily because they are in a particular environment but because as they grow older, their view of who they are and their feeling of self-worth continue to change. As the child grows older and encounters different experiences and demands, the idea of his/her self-worth may change accordingly. According to McDaniel (1976), the self-concept of the disabled individual will change over time as a result of learning and new experiences. As the child grows older, he/she continues to learn more about what to expect of himself/herself and what others expect of him/her.

The special individualised attention available in special schools made possible by the high teacher-pupil ratio and availability of the necessary physical facilities as compared to the integrated environment may lead to an improved self-concept as the child continues to stay in the school. Being in a small social environment and closer to caring teachers, the child feels accepted, recognised, wanted and loved. This situation can influence his/her

population in special schools and the small classes make it easy for the teacher to interact effectively with the children involved and to give them individualised attention that may be lacking in ordinary schools.

4.5 Differences in the Self-concept of Children Placed in Integrated Schools for a Shorter Period of Time and those Placed for a Longer Period of Time

The fourth hypothesis stated that, "there is no significant difference between the self-concept of children with visual handicaps placed in integrated schools for a shorter period of time and those placed for a longer period of time". The results of the analysis of the two-tailed t-test are presented in Table 4.4.

Table 4.4.

A t-test Analysis for Differences in Self-concept among Children Placed in Integrated Schools for a Shorter Period of Time and those Placed for a Longer Period of Time.

Short Placement (N=58)		Long Placement (N=39)		T-test	
Mean	S.D	Mean	S.D	T-value	P
334.85	25.25	338.62	31.89	-.62	.54

From Table 4.4, it can be seen that the mean self-concept score for children who had spent more time (7-11 years) in the integrated schools was higher than that of children who had spent less time (3-6 years), though the difference was not within the acceptable level of significance. This is an interesting finding because one would expect the child who has been integrated for a longer period of time to have a higher self-concept than the one who has been integrated for a shorter period of time. However, some possible explanations for this can be given. All the children in the integrated programmes are placed in day schools

another, therefore, his/her self-concept remains unaffected as compared to the child who is moved from an integrated environment to a special school. According to the ecological theory of self-concept (Hormuth, 1990), change of environment may lead to re-evaluation of the existing self and readjustment on the view one has on himself/herself depending on the nature and demands of the new environment. In this study, the self-concept of the child in the integrated school may not have readjusted because he/she had been in the same environment all along.

During the study, it was observed that about a half of the subjects were 15 years old and above. This situation was occasioned by late identification of these children who had remained at home unnoticed. This could imply that most of the children joined school at an advanced age when their self-concepts were about or had stabilized, therefore, the environmental setting had very little or no effect on the way they perceive themselves.

It is also possible that the child with visual impairment in the integrated school may not get adequate individualized attention from the class teachers who are dealing with large numbers of pupils. The low teacher-pupil ratio combined with the shortage of teachers in most of the integrated schools implied that the child with visual impairment placed in these schools does not get adequate attention and appropriate help when faced with difficulties. The child may lag behind most of the time and as a result feel that he/she is not worth competing with normal children. This kind of a situation may not impact positively on his/her self-concept. The child is also likely to face rejection from his/her normal peers. A situation whereby the child is rejected may not be conducive for the development of a positive self-concept. In short, what the finding and the explanation given here imply is that the integrated schooling environment as it is presently may not be quite conducive to

4.6 Relationship between Self-concept, Pupil-pupil and Teacher-pupil Interaction

Three hypotheses were tested. The three hypotheses stated that:

- (i) There is no significant relationship between self-concept and the level of pupil-pupil interaction.
- (ii) There is no significant relationship between self-concept and the level of teacher-pupil interaction.
- (iii) There is no significant relationship between the level of pupil-pupil interaction and teacher-pupil interaction.

The results of the Pearson's product-moment correlation analysis for the hypothesized relationship between the three variables are presented in Table 4.5.

Table 4.5

A Correlation Analysis Matrix on the Relationship between Self-concept, Pupil-pupil Interaction and Teacher-pupil Interaction.

	1	2	3
1 Self-concept			
2 Pupil-pupil Interaction	.33**		
3 Teacher-pupil Interaction	.35**	.53**	

N=194 1-tailed Sign. ** $p < .001$

From the results presented in Table 4.5, the three hypotheses were rejected ($p < .001$). The results show that there is a positive relationship ($r = .33$) between self-concept and the level of pupil-pupil interaction. A correlation coefficient of .35 was reported between self-concept and the level of teacher-pupil interaction. The correlation coefficient reported

These results imply that the level of interaction between the individual child and other pupils and teachers influence the way he/she perceives himself/herself. A child who interacts more often with other children and teachers will tend to have a high self-concept.

The positive relationship between the level of pupil-pupil interaction and teacher-pupil interaction indicates that a child who interacts more with fellow pupils will also tend to interact more with teachers. Teachers should therefore, plan and provide more interaction opportunities among children and between themselves and their learners. They should encourage social interactions by involving children in group work and by active participation in learning activities. This will help the child to know how others perceive, treat, and react to him/her. If he/she perceives the treatment and reactions from other children and teachers to be positive he/she will tend to rate himself/herself positively.

Although the interaction measures used in the present study confined themselves to a few aspects of interaction and interaction within the school environment, the findings have a wider implication on how social interactions within and without the school can influence the development of self-concept. These findings support the interactionist theory of self-concept (Mead, 1934; Gordon, 1972) which emphasises the role of the society and the persons with whom the individual interacts with in determining self-concept. When the child is in school, his/her significant others include fellow pupils and teachers with whom he/she interacts. As the child interacts with other pupils and teachers in school, their feelings about him/her are communicated directly and indirectly through their emotional reactions. If these feelings and reactions are positive, the child will develop a positive feeling of self-worth. It can be expected that the more the child interacts with other pupils and teachers the more he/she learns about their reactions and feelings about him/her. This implies that, such a child will have a complete image of who he/she is, unlike the child who interacts less often with his/her colleagues and teachers, hence the positive relationship

interacts less with other people will not have a complete image of himself/herself and will have doubt about their reactions towards him/her and will not know how others value him/her. He/she may also have doubt about his/her capabilities. All these will lead to a low feeling of self-worth.

The findings also support the cognitive (Piaget, 1967) and the ecological (Hormuth, 1990) theories that also recognize the role of others in the development of self-concept. The cognitive theory asserts that by the end of the preoperational stage (2-7 years) of cognitive development the child is capable of incorporating the views and feelings of others about him/her in his/her evaluation of his/her self-worth (Piaget, 1967). This continues in later stages and hence, the importance of the interaction between the child with visual impairment with his/her colleagues and teachers.

The ecological theory recognizes the importance of the reactions of others both verbal and non-verbal in the development of self-concept (Hormuth, 1990). As the child interacts with other pupils and teachers, their feelings about him/her are communicated both verbally and non-verbally. The more the child interacts with other pupils and teachers the more complete his/her view on himself/herself will be, hence, the likelihood of having a higher self-concept than the child who interacts less with other pupils and teachers.

Other authors (Coopersmith, 1967; Monbeck, 1973; Kirtley, 1975; Lowenfield, 1975; Tuttle, 1984; Tuttle, 1987) also recognize the fact that interaction with others and their reactions to an individual affect self-concept. The more often a child interacts with others the more he/she learns about their reactions and feelings about him/her. This helps him/her to construct a complete and a consolidated image of himself/herself.

The results showed a positively significant relationship between the level of pupil-pupil and teacher-pupil interaction. Although, this was not a major area of concern, it is worth to note that this finding confirms that the two measures tended to tap a more or less

individual will react in the same way irrespective of the group of people he/she is dealing with. The child predisposed in this manner will interact freely and often with other pupils and teachers as well. Such interactions will help the child assess his/her self-worth and to adjust his/her self-concept, accordingly.

The findings in this study can be understood to suggest that the nature and quality of interaction is important. This is because one would expect the child in the ordinary school to have more social interaction opportunities than the child in a special school and possibly to have a higher self-concept. However, this does not appear to be the case since only the totally blind children in ordinary schools had a significantly higher self-concept than those in special schools.

4.7 Self-concept Differences among Younger and Older Children with Visual Handicaps

The eighth hypothesis stated that, "There is no significant difference between the self-concept of younger and older children with visual handicaps". The results of the two-tailed t-test analysis are presented in Table 4.6.

Table 4.6

A t-test Analysis for Self-concept Differences among Younger and Older Children with Visual Impairments.

Younger (N=104)		Older (N=90)		T-test	
Mean	S.D.	Mean	S.D.	T-value	P
332.19	27.18	333.96	31.88	-.41	.68

The results in Table 4.6, show that the mean self-concept scores for younger (10-14 years) and older (15-19 years) children were not significantly different, therefore, the hypothesis was accepted. These results suggest that the age of the child does not seem to influence his/her self-concept after the age of 10 years.

One of the explanations that can be given to justify this finding is that self-concept tends to stabilize around the age of 11 years (Piaget, 1976; Bem, 1972) or much earlier before the adolescent stage sets in (Moeller, 1994). Probably, by the time the child enters the adolescent stage he/she starts to mature cognitively, therefore, the concept of his/her personal worth starts to stabilize and he/she becomes aware of his/her weaknesses, accomplishments, strengths, values, expectations and attitudes of others towards him/her. This awareness may remain unchanged throughout the adolescent stage and hence the more or less stable self-concept.

This does not mean that the child's self-concept will not change at all after this age, but it means that the subsequent changes may be insignificant unless there is a major change in the social and physical environment (Hormuth, 1990). A major change in the child's social and physical environment may result in a re-evaluation of the self and change or maintenance of the old self as the situation may demand. This is probably what is implied in the finding that children who had stayed in the special schooling environment for a longer period of time (see section 4.4) tended to have a higher self-concept than those who had stayed in the same environment for a shorter period of time. After staying in the new environment for some time, these children might have positively re-evaluated their self-concept.

One clarification needs to be made here, that the period of placement discussed previously (see sections 4.4 and 4.5) is not synonymous with the age of the child. This is because as it was observed, some children had been integrated since pre-primary, whereas

problems when they are already in school and when their conditions severely deteriorate they are either placed in the integrated programmes or in special schools. In this case, a child who is considered to be in the higher age bracket might have been in a particular schooling environment for a short period of time.

4.8 Differences between the Self-concept of Children with Visual Handicaps in Different Classes

The one-way analysis of variance was used to test the last hypothesis which stated that, "there are no significant differences between the self-concept of children with visual handicaps in different classes". The results are presented in Table 4.7.

Table 4.7

Analysis of Variance of the Self-concept of Children in Different Classes.

Source	D.F	Sum of Squares	Mean Squares	F. Ratio	P
Between Groups	3	10637.24	3545.75	4.32	.01
Within Groups	190	156042.74	821.28		
Total	193	166679.98			

*($P < .01$)

The results in Table 4.7 show that there are significant differences ($F = 4.32$, $P < .01$) in the self-concept of children in different class levels. Pupils in class five had the least mean self-concept score while those in class eight had the highest mean score (see Table 4.8). These findings suggest that self-concept will tend to improve as the child advances from the lower classes to the highest.

Further, Fisher's least significant difference (LSD) test was carried out to find out

comparison reveals whether each of the four groups differ significantly from the rest. The results are presented in Table 4.8.

Table 4.8.

Fisher's Least Significance Difference Analysis for Differences between the Self-concept of Children with Visual Handicaps in Different Classes.

Mean Self-concept Score	Class	5	6	7	8
321.02	5				
332.73	6				
334.08	7	*			
342.29	8	*			

* $P < .05$

From Table 4.8, it can be seen that there was a significant difference ($P < .05$) between the self-concept of children with visual handicaps in class 5 and those in class 7. The self-concept mean score of children in class 7 was higher than that of children in class 5. Similarly, the self-concept of children in class 8 was significantly higher ($P < .05$) than that of children in class 5. The self-concept differences between classes 5 and 6, 6 and 7, 6 and 8, and 7 and 8 were not statistically significant although the mean scores tended to improve as we move from the lowest class to the highest. Some explanations can be given to this finding. When the child enters school, his/her self-concept is still in the process of forming and as he/she matures and progresses from one class to another it keeps on changing and hence the reported positive trend. Possibly, this trend continues until the self-concept stabilizes. As the child matures and moves from one class to another, he/she continues to encounter new experiences and to interact with more people who react differently to

existing view of the self. They help the child to re-evaluate his/her self-worth and to change accordingly. The reactions from others communicate information about who he/she is and their feelings about him/her. On evaluation of the new information about his/her worth and the feelings of others, the child adjusts his/her self-concept accordingly.

As the child moves from one class to another his/her mental ability improves and discovers that he/she can do better on tasks that are more demanding and that might have appeared to be difficult earlier. This gives him/her more confidence and a feeling of competence and consequently his/her feeling of self-worth improves. This finding does not support the study by Obiakor and Stile (1993) which found self-concept not to be significantly influenced by grade level.

4.9 **Interaction Effect of Gender, Period of Placement, Age Level, Class Level and Placement on the Self-concept of Children with Visual Handicaps**

According to Tuckman, (1978) and Gall, D., Borg, and Gall, P.(1996), most educational situations are quite complex, in that, the effect of one factor on any selected variable cannot realistically be considered in isolation from other factors. This is true unless the other factors are held constant through experimental controls. However, experimental control in educational research and the other social sciences is not a hundred per cent possible. In this case, it was considered necessary to examine the interactive effect of gender, period of placement, age level, class level and placement on the self-concept of children with visual handicaps in integrated and special schools. Factorial analysis of variance was carried out on data from the whole sample irrespective of placement, integrated and special school samples, respectively. The results are presented in Tables 4.9, 4.10 and 4.11.

According to the results in Table 4.9, placement, gender, age level and class level

Table 4.9

Analysis of Variance on the Effect of Gender, Period of Placement, Age Level, Class Level and Placement on the Self-concept of Children with Visual Handicaps.

Source of Variance	Sum of Squares	DF	Mean Squares	F-ratio	P
<u>Main Effects</u>	15971.63	7	2281.66	2.83	.01*
Gender (A)	464.98	1	464.98	.58	.45
Period of Placement (B)	798.30	1	798.30	.99	.32
Age Level (C)	1425.79	1	1425.79	1.77	.19
Class Level (D)	7238.00	3	2412.67	2.99	.03*
Placement (E)	3144.44	1	3144.44	3.89	.05*
<u>2-Way Interactions</u>	15022.34	18	834.57	1.03	.43
A by B	1237.62	1	1237.62	1.53	.22
A by C	50.69	1	50.69	.06	.80
A by D	5183.52	3	1727.84	2.14	.10
A by E	1191.90	1	1191.90	1.48	.23
B by C	1104.72	1	1104.72	1.37	.24
B by D	2882.78	3	960.93	1.19	.32
B by E	3028.31	1	2028.31	2.51	.12
C by D	2088.89	3	969.30	.86	.46
C by E	453.94	1	453.94	.56	.45
D by E	2645.65	3	881.88	1.09	.32

N=194 *P < .05

integrated and special schools as a whole. This indicates that all these factors taken together had some significant influence on self-concept. This finding confirms that self-concept is a multidimensional personality factor that cannot be considered to be determined by one

chapter 2 which revealed that self-concept is determined by interactions with other persons, cognitive maturity, environment, objects (Mead, 1934; Piaget, 1967; Homurth, 1990) among other factors. The main effect of class level on self-concept for the whole sample was statistically significant ($F=2.99$, $P<.05$). This finding is consistent with the results reported in section 4.8 which indicated that self-concept tends to improve as the child advances from

Table 4.10

Analysis of Variance on the Effect of Gender, Period of Placement, Age Level and Class Level on the Self-concept of Children with Visual Handicaps in Integrated Schools.

Source of Variance	Sum of Squares	DF	Mean Squares	F-ratio	P
<u>Main Effect</u>	8778.78	6	1463.13	1.94	.09
Gender (A)	1743.72	1	1743.72	2.31	.13
Period of Placement (B)	553.20	1	553.20	.73	.40
Age Level (C)	8.11	1	8.11	.01	.92
Class Level (D)	5838.53	3	1946.18	2.58	.06
<u>2-Way Interactions</u>	7543.46	12	628.62	.83	.62
A by B	349.07	1	349.07	.46	.50
A by C	28.00	1	28.00	.04	.85
A by D	1258.84	3	419.61	.56	.65
B by C	1084.16	1	1084.16	1.44	.24
B by D	1443.47	3	381.16	.51	.68
C by D	1372.58	3	457.53	.61	.61

N=97

one class to another. Placement had a statistically significant ($F=3.89$, $P<.05$) main effect

The results in Table 4.9, show that gender, period of placement and age level did not have a main effect on self-concept. It is also clear from the table that none of the interaction effects of the considered variables on self-concept was statistically significant.

The results in Table 4.10 show that, none of the factors considered independently or in consideration with others had a significant effect on the self-concept of children with visual handicaps in integrated schools.

Table 4.11

Analysis of Variance on the Effect of Gender, Period of Placement, Age Level and Class Level on the Self-concept of Children with Visual Handicaps in Special School.

Source of Variance	Sum of Squares	DF	Mean Squares	F-ratio	P
<u>Main Effects</u>	11580.72	6	1930.12	2.30	.04*
Gender (A)	26.86	1	26.86	.03	.86
Period of Placement (B)	3036.06	1	3036.06	3.61	.06
Age Level (C)	1441.18	1	1441.18	1.72	.19
Class Level (D)	3362.89	3	1220.96	1.33	.27
<u>2-Way Interactions</u>	12118.77	12	1009.90	1.20	.30
A by B	13.15	1	13.15	.02	.90
A by C	214.29	1	214.29	.26	.62
A by D	5311.58	3	1770.53	2.12	.12
B by C	7.99	1	7.99	.01	.92
B by D	7705.60	3	2568.53	3.06	.03*
C by D	2498.22	3	832.74	.99	.40

N=97 *P < .05

According to the results in Table 4.11, gender, period of placement, age level and class

visually handicapped children placed in special schools. Considered independently, all these variables did not have an effect on the child's self-concept. The only interaction that had a significant effect on self-concept was between period of placement and class level.

From the results presented in Tables 4.9, 4.10 and 4.11, it was concluded that, in general the variables considered did not have significant interactive effect on the self-concept of children with visual handicaps.

4.10 Summary of the Findings

In summary, it can be said that the findings did not support the main hypothesis on differences between the self-concept of children with visual impairments in integrated and in special schools. However, a significant difference between the self-concept of totally blind children in integrated and in special schools was reported. This difference was in favour of the integrated subjects.

No gender differences were reported in self-concept. Children with visual impairments placed in special schools for a longer period of time tended to have a significantly higher self-concept than those placed for a shorter period of time. The self-concept of children who had been in the integrated programme for a longer period of time was not significantly different from that of children who had been in the same programme for a shorter period of time. The pupils' self-concept was found to be positively and significantly related to the level of pupil-pupil and teacher-pupil interaction. The pupil-pupil interaction variable was positively and significantly related to the teacher-pupil interaction variable. No significant difference was reported between the self-concept of younger and older children. The results indicated that the self-concept of children with visual impairments tends to improve as they progress from one class to another. Finally, the

not in general have an interactive effect on the self-concept of children with visual handicaps.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

In this chapter, the conclusions drawn from the findings of the study are presented. Secondly, the recommendations on how the findings obtained can be applied to improve the education of children with visual handicaps and to enhance their self-concept are given. Finally, some suggestions for consideration in future research are made.

5.2 Conclusions

The findings of this study showed that placing children with visual impairments either in a special or in an ordinary school does not affect their self-concept as was hypothesized. The finding that totally blind children placed in ordinary schools tend to have a higher self-concept than those placed in special schools may not be conclusive enough because the number of cases involved was small. The general lack of influence of integration on the self-concept of children with visual handicaps was mainly attributed to disparities in proper planning, facilities, preparedness, support and possibly the kind of acceptance accorded these children in the two different settings. This led to the conclusion that something has to be done to make the integrating school environment more conducive and accommodative for the integrated programmes in the country to yield positive results in terms of the child's personality and academic performance.

In addition to providing the basic learning resources, there is great need for training teachers in special education to serve in integrated schools. This will equip them with the basic skills necessary to understand and assist children with visual handicaps. It should not be a matter of placing children with handicaps in the schools and assume that the teachers

children and then be able to address those needs in an integrated environment. This may make the child to feel accepted and consequently influence his/her self-concept positively.

There was no difference in self-concept among children with visual handicaps, which was due to the gender of the pupils. The findings showed that placement in a special schooling environment for a longer period of time is likely to positively and significantly influence self-concept than longer placement in an ordinary schooling environment. This finding was attributed to the possibility that the small community found in the special school setting could be understanding, accepting and accommodating than the larger community in the ordinary school setting. Understanding and acceptance of the child's difficulties may change his/her feelings of self-worth.

The finding that self-concept is positively and significantly related to pupil-pupil and teacher-pupil interaction led to the conclusion and confirmation that social interaction influences a child's self-concept. This is in agreement with the theories of self-concept discussed in chapter two. There was no significant difference between the self-concept of younger and older children. The conclusion drawn from this finding was that self-concept tends to stabilize by the time the child enters the adolescence stage that begins around the age of 12 years or earlier as Piaget (1967), Bem (1972) and Moeller (1994) have suggested. This finding further explains the reason why placement in a particular schooling environment did not seem to affect the child's self-concept, at least for now. Lastly, the findings suggested that the self-concept of children with visual handicaps tends to improve as they advance from one class level to another. This finding was attributed to the encounter of new experiences and interactions with more persons that give the child more information on who he/she is and how others regard him/her. The child gets more of this information and gains self-confidence as he/she matures and advances from one class to another. The

5.3 Recommendations

The recommendations made here are based on the findings obtained in this study. These recommendations are made in consideration of making education beneficial and available to more children with visual impairments. Research has reported positive relationship between the level of education and self-esteem (Tiggerman, 1985; Beach et al., 1995). Thus, if we expect the child with visual impairment to excel in school we should address ourselves to some of the problems that may interfere with the development of a positive self-concept.

Integration of more children who are totally blind in normal schools should be considered because the results implied that the self-concept of these children would tend to be higher if placed in normal schools. The self-concept of these children can be further improved by in-service training and workshops for the teachers who handle them. Once these teachers are trained they will be able to handle these children better and with understanding. Consequently, the children will feel more accepted and loved. This may have a positive impact on their self-concept.

The fact that children who are totally blind seem to benefit by being integrated in ordinary schools can be assumed to suggest that integration can also benefit children with other impairments. It is therefore, recommended that the government initiate other integrated programmes for children with other types of disabilities. However, before this is done it would be advisable to ensure that some of the basic requirements necessary for accommodating such children in ordinary schools are met such as the training of teachers in special education and provision of supportive facilities.

The fact that most of the integrated programmes in place involve children with visual impairments, make it necessary to initiate programmes for children with other disabilities such as deafness and physical impairments. Given that this study involved only

integrated programmes to children with other types of disabilities. Therefore, if other programmes are initiated and their advantages assessed through research like the current one, conclusions can be made as to whether integration is more advantageous to children with various disabilities or not. Introduction of more integrated programmes will also provide educational opportunities to those children who cannot get places in the few existing special schools.

The lack of relationship between self-concept and integration was partly attributed to the fact that self-concept tends to stabilize early in life before the adolescence stage. Therefore, any effort to assist the child to develop a positive self-concept should be concentrated in the early years of life. Such effort include encouraging the child to develop competence in various areas and to interact more often with other people who are expected to give him/her a complete picture of his/her self-worth.

Teachers dealing with children with visual handicaps should encourage them to interact more and positively with other children and teachers because the results showed that children who interact more often with other pupils and teachers tend to have a higher self-concept. It is during such interactions, that the child gets feedback about other people's feelings about him/her. If the feelings and reactions from others are positive, he/she is bound to develop a positive sense of self and vice versa.

As mentioned earlier in this chapter, lack of prior planning, facilities, teachers trained in special education, late identification among other problems, are pertinent features in the integrated programmes for children with visual handicaps. This is probably why no significant difference was reported between the self-concept of children in integrated schools and those in special schools. It is therefore, recommended that these problems be addressed, to make a comparative study possible because the special schools have better facilities. This is also necessary for the development of the personality of children who are

normal environment and the presence of ordinary persons. When distributing the limited resources, the Kenya government should give priority to schools that are participating in the integration of children with visual impairments. This priority should be mainly in the areas of provision of facilities and teachers trained in special education. The government should consider posting more teachers trained in special education to schools integrating children with visual disabilities because it is difficult for the class teachers to interact effectively and to give individualized attention to the affected child when dealing with a class with as many as 60 children.

Suggestions for Further Research

Suggestions were made for consideration in future research. Any future research endeavours should focus interest on the effect of varying levels of self-concept of children with visual impairments on other variables such as their academic performance, dependence, acceptance by others and motivation to learn.

Further study of the relationship between self-concept and integration of pupils with visual impairments can be improved by using a larger sample of children who are totally blind before conclusions are made. A study of the effect of placement in either a special or an integrated school on self-concept can involve younger children than the ones used in this study. This is because placement of a child in a particular educational programme may significantly influence his/her self-concept at an earlier age before it starts to stabilize. Thus, a comparison between the change in self-concept at the time the child enters school and by the time he/she is around 12 years old may give a better picture on how the programme has affected his/her self-concept.

A larger sample could be studied in future to ascertain whether the lack of effect of

A study on pupil-pupil and teacher-pupil interaction can best be done through direct observation. This may be necessary before a final conclusion on whether pupil to pupil and teacher to pupil interactions affect self-concept positively can be made. The observation technique has an advantage in that, it will give information on interaction as it occurs naturally. However, this technique may take a considerable amount of time and money.

According to the observations made during the visit to various integrated programmes, it was noted with concern that there are quite a number of problems that hinder the smooth running of these programmes. Such problems include, lack of timely identification of children who are visually impaired, rising cost of education, and dropping out from school. For this reason, it is recommended that research be carried out to look into the viability of these programmes and to come up with solutions to the problems being faced. Such a research is also necessary to document all the problems facing these programmes.

Study on the relationship between other factors and self-concept can be improved by looking at specific areas of self-concept such as academic self-concept and social self-concept. Children may have a more or less similar measure of global self-concept and wide variations in measures of specific areas of self-concept. For example, a child who is antisocial and knows that he/she is not liked by other children may feel and strongly believe that he/she is good academically. Such a child may score low on a measure of global self-

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APPENDICES

APPENDIX A

SELF-CONCEPT SCALE

("THE WAY I FEEL ABOUT MYSELF")

Age _____ Sex _____

Class _____ Date of admission _____

Visual acuity/distance _____ School _____

INSTRUCTIONS:

Here are some statements that tell how people feel about themselves. Listen to each statement carefully and decide whether or not it describes the way you feel about yourself. Select one of the five responses next to each statement that shows exactly the extent to which you agree with the statement. Make sure that the response you have chosen describes the way you feel about yourself. If you strongly agree, choose the letters "SA". If you agree, choose the letter "A". If you are undecided or uncertain, choose the letter "U". If you disagree, choose the letter "D". If you strongly disagree, choose the letters "SD". Respond to every statement, even if some are hard to decide. Choose only one response for each statement.

Remember that there are no right or wrong answers. It is only you who can tell how

		Uncertain		Disagree
1. SA	2. A	3. U	4.D	5. SD

- | | | | | | |
|--|--------|------|------|------|--------|
| 1. I am a happy person..... | 1. SA. | 2.A | 3.U. | 4.D. | 5. SD. |
| 2. It is not easy for me to make friends..... | 1. SA. | 2.A. | 3.U. | 4.D. | 5. SD. |
| 3. I am smart | 1. SA. | 2.A. | 3.U. | 4.D. | 5. SD. |
| 4. I am shy..... | 1. SA. | 2.A. | 3.U. | 4.D. | 5. SD. |
| 5. When I grow up, I will be an important person. | 1. SA. | 2.A. | 3.U. | 4.D. | 5. SD. |
| 6. I get worried when we have tests in school..... | 1. SA. | 2.A. | 3.U. | 4.D. | 5. SD. |
| 7. I am unpopular..... | 1. SA. | 2.A. | 3.U. | 4.D. | 5. SD. |
| 8. I am well behaved in school..... | 1. SA. | 2.A. | 3.U. | 4.D. | 5. SD. |
| 9. I cause trouble in my family..... | 1. SA. | 2.A. | 3.U. | 4.D. | 5. SD. |
| 10. I am strong..... | 1. SA. | 2.A. | 3.U. | 4.D. | 5. SD. |
| 11. I have good ideas..... | 1. SA. | 2.A. | 3.U. | 4.D. | 5. SD. |
| 12. I am an important member of my family | 1. SA. | 2.A. | 3.U. | 4.D. | 5. SD. |
| 13. I am an important person to my friends | 1. SA. | 2.A. | 3.U. | 4.D. | 5. SD. |
| 14. I do what is right most of the time | 1.SA. | 2.A. | 3.U. | 4.D. | 5. SD. |
| 15. I solve my problems very easily..... | 1.SA. | 2.A. | 3.U. | 4.D. | 5. SD. |
| 16. I change when I know I am wrong..... | 1.SA. | 2.A. | 3.U. | 4.D. | 5. SD. |
| 17. I am lazy..... | 1.SA. | 2.A. | 3.U. | 4.D. | 5. SD. |
| 18. I am helpful..... | 1.SA. | 2.A. | 3.U. | 4.D. | 5. SD. |
| 19. I am useful to other people..... | 1.SA. | 2.A. | 3.U. | 4.D. | 5. SD. |
| 20. I am good in my school work..... | 1.SA. | 2.A. | 3.U. | 4.D. | 5. SD. |
| 21. I can write well..... | 1.SA. | 2.A. | 3.U. | 4.D. | 5. SD. |

Strongly Agree	Agree	Undecided or Uncertain	Disagree	Strongly Disagree
1. SA	2. A	3. U	4.D	5. SD

23. I behave badly at home..... 1.SA. 2.A. 3.U. 4.D. 5.SD.
24. I am slow in finishing my school work..... 1.SA. 2.A. 3.U. 4.D. 5.SD.
25. I am an important member of my class..... 1.SA. 2.A. 3.U. 4.D. 5.SD.
26. I am kind..... 1.SA. 2.A. 3.U. 4.D. 5.SD.
27. I can talk in front of the class..... 1.SA. 2.A. 3.U. 4.D. 5.SD.
28. I quarrel with my brother(s) and sister(s)..... 1.SA. 2.A. 3.U. 4.D. 5.SD.
29. My friends like my ideas. 1.SA. 2.A. 3.U. 4.D. 5.SD.
30. I am obedient at home..... 1.SA. 2.A. 3.U. 4.D. 5.SD.
31. I am lucky..... 1.SA. 2.A. 3.U. 4.D. 5.SD.
32. I get worried most of the time..... 1.SA. 2.A. 3.U. 4.D. 5.SD.
33. My parents expect too much of me..... 1.SA. 2.A. 3.U. 4.D. 5.SD.
34. I like being the way I am..... 1.SA. 2.A. 3.U. 4.D. 5.SD.
35. I am clean..... 1.SA. 2.A. 3.U. 4.D. 5.SD.
36. I often volunteer in school..... 1.SA. 2.A. 3.U. 4.D. 5.SD.
37. I wish I were different 1.SA. 2.A. 3.U. 4.D. 5.SD.
38. I sleep well at night..... 1.SA. 2.A. 3.U. 4.D. 5.SD.
39. I hate school..... 1.SA. 2.A. 3.U. 4.D. 5.SD.
40. I do not share my things with other people..... 1.SA. 2.A. 3.U. 4.D. 5.SD.
41. My classmates in school think I have good ideas 1.SA. 2.A. 3.U. 4.D. 5.SD.
42. I am unhappy..... 1.SA. 2.A. 3.U. 4.D. 5.SD.
43. I have many friends..... 1.SA. 2.A. 3.U. 4.D. 5.SD.

Strongly Agree	Agree	Undecided or Uncertain	Disagree	Strongly Disagree
1. SA	2. A	3. U	4.D	5. SD

45. My family is not happy with me..... 1.SA. 2.A. 3.U. 4.D. 5.SD.
46. I have an attractive face..... 1.SA. 2.A. 3.U. 4.D. 5.SD.
47. I am popular with my classmates..... 1.SA. 2.A. 3.U. 4.D. 5.SD.
48. I am friendly with many people..... 1.SA. 2.A. 3.U. 4.D. 5.SD.
49. I have a healthy body..... 1.SA. 2.A. 3.U. 4.D. 5.SD.
50. I am an attractive person..... 1.SA. 2.A. 3.U. 4.D. 5.SD.
51. I am a bad person..... 1.SA. 2.A. 3.U. 4.D. 5.SD.
52. I am a nobody..... 1.SA. 2..A. 3.U. 4..D. 5. SD.
53. My friends do not trust me..... 1.SA. 2.A. 3.U. 4.D. 5. SD.
54. I do not always tell the truth..... 1.SA. 2.A. 3.U. 4.D. 5.SD.
55. I am not loved by my family..... 1.SA. 2.A. 3.U. 4.D. 5.SD.
56. Many people do not like me..... 1.SA. 2.A. 3.U. 4.D. 5.SD.
57. I am a careless person..... 1.SA. 2.A. 3.U. 4.D. 5.SD.
58. I am as good as I should be..... 1.SA. 2.A. 3.U. 4.D. 5.SD.
59. I forget what I learn..... 1.SA. 2.A. 3.U. 4.D. 5.SD.
60. I am easily annoyed..... 1.SA. 2.A. 3.U. 4.D. 5.SD.
61. I am a good reader..... 1.SA. 2.A. 3.U. 4.D. 5.SD.
62. I like my brother(s) and sister (s)..... 1.SA. 2.A. 3.U. 4.D. 5.SD.
63. I have a good-looking body..... 1.SA. 2.A. 3.U. 4.D. 5.SD.
64. I am always dropping or breaking things..... 1.SA. 2.A. 3.U. 4.D. 5.SD.
65. I can be trusted..... 1.SA. 2.A. 3.U. 4.D. 5.SD.

Strongly Agree	Agree	Undecided or Uncertain	Disagree	Strongly Disagree
1. SA	2. A	3. U	4.D	5. SD

67. I think of bad things..... 1.SA. 2.A. 3.U. 4.D. 5.S.D.
68. I cry easily..... 1.SA. 2.A. 3.U. 4.D. 5.S.D.
69. I am a good person..... 1.SA. 2.A. 3.U. 4.D. 5.S.D.
70. I like my body appearance just the way it is..... 1.SA. 2.A. 3.U. 4.D. 5.S.D.
71. I would like to change some parts of my body.. 1.SA. 2.A. 3.U. 4.D. 5.S.D.
72. I am satisfied to be just what I am..... 1.SA. 2.A. 3.U. 4.D. 5.S.D.
73. I do not like myself..... 1.SA. 2.A. 3.U. 4.D. 5.S.D.
74. I like staying alone..... 1.SA. 2.A. 3.U. 4.D. 5.S.D.
75. I am not the person I would like to be..... 1.SA. 2.A. 3.U. 4.D. 5.S.D.
76. I should love my family more..... 1.SA. 2.A. 3.U. 4.D. 5.S.D.
77. I take good care of my body..... 1.SA. 2.A. 3.U. 4.D. 5.S.D.
78. I can always take care of myself in any situation. 1.SA. 2.A. 3.U. 4.D. 5.S.D.
79. I do not forgive others easily..... 1.SA. 2.A. 3.U. 4.D. 5.S.D.

APPENDIX B

PUPIL - PUPIL INTERACTION SCALE

Age _____ Sex _____
 Class _____ Date of Admission _____
 Visual acuity/distance _____ School _____

INSTRUCTIONS:

The statements below are about you, your friends and other pupils in your school. Listen to each statement carefully and decide how it describes the extent to which you interact or relate with your friends and other pupils in your school. Choose the response that you feel shows exactly the extent to which you interact or relate with your friends and other pupils. In statements 1 to 14, if your response is always choose the letter 'A'. If your response is sometimes, choose the letter 'S'. If it is never, choose the letter 'N'. In item 15, and 16 choose one of the responses below each statement. Choose only one response for each statement.

Note:

- (i) The information you give will be kept confidential and will not be made available to anybody.
- (ii) This is not a test. The right answer is the one that correctly describes the extent to which you relate with other pupils in your school.

1. I talk to most of the boys and girls in our school..... 1.A. 2.S. 3.N.
2. I help my friends to do their homework..... 1.A. 2.S. 3.N.
3. I share my books with other pupils in my class while we are reading
or doing our homework..... 1.A. 2.S. 3.N.

5. I ask my friends questions when I don't know what to do..... 1.A. 2.S. 3.N.
6. My friends help me to do my homework. 1.A. 2.S. 3.N.
7. When we go outside the classroom I stay in the company of my friends or other children 1.A. 2.S. 3.N.
8. I do my homework alone. 1.A. 2.S. 3.N.
9. I play with other children from my class. 1.A. 2.S. 3.N.
10. I play with other children from other classes. 1.A. 2.S. 3.N.
11. I talk to my friends in school. 1.A. 2.S. 3.N.
12. Other pupils ask me whether I have a problem so that they can help..... 1.A. 2.S. 3.N.
13. Other pupils ask me to do things for them 1.A. 2.S. 3.N.
14. Other pupils guide me around the school compound 1.A. 2.S. 3.N.
15. How many friends do you have in the school.
 (1) 0-2 (2) 3-5 (3) 6-8 (4) more than 8
16. How many pupils do you talk to in a day?

APPENDIX C

TEACHER - PUPIL INTERACTION SCALE

Age _____ Sex _____

Class _____ Date of admission _____

Visual acuity/distance _____ School _____

INSTRUCTIONS:

The statements below are about you and your teacher(s). Listen to each statement carefully and decide how it describes the extent to which you interact or relate with your teacher(s). Choose the response that you feel shows exactly the extent to which you interact or relate with your teacher(s). In statements 1 to 13, if your response is always choose the letter 'A'. If your response is sometimes, choose the letter 'S'. If your response is never, choose the letter 'N'. In items 13, 14 and 16 choose one of the responses below each statement. Choose only one response for each statement.

Note:

- (i) The information you give will be kept confidential and will not be made available to anybody.
- (ii) This is not a test. The right answer is the one that correctly describes the extent to which you relate with your teacher(s).

1. My teacher(s) help me to do my work in class. 1.A. 2.S. 3.N.
2. I go to see my teacher(s) when I have a problem. 1.A. 2.S. 3.N.
3. I ask my teacher(s) what to do when I am not sure. 1.A. 2.S. 3.N.
4. I ask my teacher(s) questions in the class when I don't understand. 1.A. 2.S. 3.N.
5. My teacher(s) ask me questions in class. 1.A. 2.S. 3.N.

7. Do your teacher(s) make sure that you do your homework. 1.A. 2.S. 3.N.
8. My teacher(s) help me to write and read1.A. 2.S. 3.N.
9. My teacher(s) find out whether I have a problem so that they can help.... 1.A. 2.S. 3.N.
10. I tell the teacher(s) when I have a problem in reading, writing or seeing the
blackboard..... 1.A. 2.S. 3.N.
11. My teacher (s) encourage me to talk and to do things 1.A. 2.S. 3.N.
12. My teacher (s) corrects me whenever I am wrong 1.A. 2.S. 3.N.
13. My teacher (s) guide me when I cannot find my way around the school...1.A. 2.S. 3.N.
14. How many teachers teach your class?
- (1) 1-2 (2) 3-4 (3) 5-6 (4) 7-8 (5) more than 8.
15. How many teachers have taught you since you entered this school?
- (1) 1-2 (2) 3-4 (3) 5-6 (4) 7-8 (5) more than 8.
16. How many teachers do you talk to in a week ?
- (1) 1-2 (2) 3-4 (3) 5-6 (4) 7-8 (5) more than 8.