EFFECTS OF LOCUS OF CONTROL ON SELF-CONCEPT AMONG SECONDARY SCHOOL LEARNERS IN SPECIAL SCHOOLS IN CENTRAL PROVINCE

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BY

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2002
DECLARATION

This thesis is my original work and has not been presented for degree in any other university

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This thesis is dedicated to my dear husband Francis Murugami in response to his support and encouragement in my education and to our children, Chris, Steve, Mary and Christine for their patience. You are cherished with much affection.
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ACRONYMS

A I E..............African Indigenous Education.
I-E.................Internal-External
P H................Physically Handicapped
SDS................Semantic Differential Scale
V I..................Visually Impaired
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ABSTRACT

The purpose of the study was to investigate the effects of locus of control on the development of self-concept among learners with special needs and to determine those factors that were amenable to pedagogical changes.

The population of the study consisted of secondary school learners with special needs in selected special schools in Central Province. The sample of the study was drawn from three secondary schools catering for the deaf, the blind and the physically handicapped.

Purposive sampling was done whereby stratification according to disability type and gender were used to select 162 sample subjects, both males and females. These included all learners in the selected population.

Three instruments were used to collect data; an Internal-External Locus of Control (I-E) Scale by Rotter (1966); a Self-concept Modified Semantic Differential (SDS) Scale from Olowu (1983) and a questionnaire to assess locus of control and self-concept in relation to school variables, such as academic achievement and aspirations. A pilot study was conducted in order to validate the research instruments as well as explore key useful pointers on administration of the test scales.
Data were analysed using descriptive and inferential statistics. Specifically, correlation coefficients, t-test, multiple regression and chi-square were calculated in an effort to investigate relationships and association between and among the variables of interest.

The major findings of this study were that on the overall, learners with special needs had internal locus of control and positive self-concept. Significant positive relationships existed between locus of control and self-concept among the visually impaired. Further relationships that were evidenced were between locus of control and academic achievement and self-concept and aspirations among deaf learners. The manner in which learners responded to the investigations was found to differ across the categories. Deaf learners indicated lower scores in all the areas of testing when compared to the other two categories.

A wide variance was noticed across all the measurement scores suggesting that there were extreme cases among the subjects under study. Implications of these findings were presented as well as recommendations on both intervention measures that could be employed and further research.
CHAPTER ONE

INTRODUCTION

1.1 Background to the study

Persons with impairments have historically been treated as if their impairments were paramount to who they were. Impairments defined them, framed them and ultimately limited them as candidates for charitable support, which further focused attention on differences rather than similarities. These views tended to adversely affect their self-concept.

Formal education has tried to counteract these treatments and definitions through special education which caters for special needs that are characteristic of children with impairments. However, in countries that are in the process of rebuilding after the oppressive colonial period, special education has not been a priority. This is true of Kenya.

The guiding philosophy in Kenya is that, education should aim at producing individuals who possess the necessary knowledge, skills, attitudes and values to enable them to participate positively in nation building. This philosophy includes learners with impairments as stated in the special education objectives of the Ministry of Education (1987):

(1) Learners should acquire literacy, numeracy and manipulative skills;

(2) Learners should acquire suitable basic foundation for the world
of work in the context of economic and manpower needs;

(3) Learners should experience an enjoyable and successful learning and desire to continue learning through exposure to meaningful experiences;

(4) Learners should grow toward maturity and self-fulfilment irrespective of handicap, as useful and well-adjusted members of society. They face the same challenge of striving to become active participators in nation building (Ndurumo, 1993).

In order to be able to achieve this philosophy, it is important to realise that the most important thing any learner will need, whether impaired or non-impaired, is self-confidence. The foundation of self-confidence is self-concept. Self-concept can be defined as the total awareness of oneself as a separate being from one’s environment; that is, knowledge of self in relation to personal attitudes, feelings, roles and body image. A healthy self-concept has been defined as knowing one-self, accepting oneself with one’s own limitations, not being ashamed of the limitations but simply seeing them as part of the reality one is in, and perhaps as a boundary one is challenged to expand (Berne & Savary, 1981).

Several studies done in Western countries, especially the United States and locally have given conflicting findings about the self-concept of persons with impairments. Self-concept as a social looking glass expresses the belief that
ideas and feelings about self emerge largely as a result of interactions with others. Yet self-concept does not only mirror the views of others or of the society at large but of the individual as well. Most people do not take belittling views of others without struggling to protect their egos and affirm their own worth (Wright, 1983). Further, Wright postulated that self-concept is psychologically of such importance that it can hardly be over-stressed, though other factors such as environmental conditions and actual attitudes and behaviours of others must not be under-stressed.

Other studies done outside Kenya have looked further into various aspects of behaviour patterns of people with impairments. Goffman (1963), postulated that the social stigma of being disabled is learned. Scott (1969), likewise observed that various patterns of behaviour, characteristic of persons who are blind are not inherent in their impairment rather they are acquired through ordinary processes of socialization that has made us all.

Children today, with or without impairments, spend an enormous amount of time relating to and interacting with others including parents, siblings, teachers and peers. Many researchers assert that a child receives information about his or her desirability, worth and status through interaction with peers and adults. This information subsequently influences the child’s self-concept and behaviour. During the school-age years, many of the social interactions that children experience take place within the school environment. The school thus becomes an important context within which to examine
children's social interactions and their related results. It is in this context that the researcher explored self-concept of learners with special needs within the school environment.

1.2 Statement of the problem

Many researchers, who have studied self-concept of learners with special needs both locally and abroad, have uncovered conflicting findings on this topic. Some indicate that, overall, learners with special needs have positive self-concept (Jervis, 1969, Kamau, 1986), while others indicate contrary results (Meighan, 1971; and Mwathi, 1998).

Warren (1984), in his review of some of these findings suggested that the differences in these findings could be attributed to components such as locus of control. Warren (1984), stressed the need for careful evaluation of variables that affect aspects of self-concept in order to make suggestions about ways of enhancing positive self-concept among learners with special needs. These learners' potentials may not be realized due to external and internal factors that can influence their self-concept. The external factors include experiences they derive from socialization within their environment with their parents, siblings, caregivers, teachers and peers. The learners' perceptions and feelings comprise their internal factors. The problem in this study was that teachers and significant others in the learners' environment lack information on the effects of locus of control on self-concept of learners with special needs.
Locus of control postulates the belief about the source of the reinforcements that we receive in our environment. A belief that one’s reinforcements are dependent on his behaviour is termed as an internal locus of control. Likewise, a belief that one’s reinforcements are controlled by outside forces such as fate or luck is termed an external locus of control. People with internal locus of control believe that they have firm control over their lives and behave accordingly. They perform at higher levels, have a higher value on their personal skills and achievements and enjoy greater mental health (Phares, 1976). On the other hand, people with external locus of control believe that their own behaviour or skills will make no difference in the reinforcements they receive and as such will not see any value in putting forth any effort to improve their situation. They have little faith in controlling their own lives in the present or in the future.

1.3 Purpose of the study

The purpose of this study was to investigate the effects of the locus of control on self-concept among the learners with special needs. It also sought to determine the relationships between self-concept and academic achievement, self-concept and home background, self-concept and aspirations and self-concept and gender.
1.4 Research questions

This study aimed at answering the following research questions upon investigating the relationships among the variables of the study, which included locus of control and self-concept as independent variables and academic achievement, aspirations, home background and gender as dependent variables.

(1). What are the factors that influence a particular orientation towards a locus of control among learners with special needs?

(2). How do these orientations affect the self-concept of learners with special needs?

(3). Are aspirations consistent with what one feels about self?

(4). Do grades attained by learners have any influence on self-concept?

(5). What role does the home background play to influence the learners’ locus of control orientation, self-concept and academic achievement among learners with special needs?

(6). Is there a significant difference between male and female locus of control orientations among learners with special needs?

(7). Do males differ from females in their self-concept?

1.5 Significance of the study

The study aimed at discovering and addressing the factors that are amenable to change and whose change would facilitate positive self-concept among learners with special needs. Such information would be useful to parents, teachers, counsellors, educational planners and others charged with the
responsibility of enhancing the welfare of persons with special needs. To learners themselves, the information could be a useful tool for facilitating change of locus of control where need be, so that they would be able to take adequate responsibility for their status, both in academic performance and aspirations as well as in the overall social relationships with others. The results of the study are expected to stimulate further research in this area in order to address the issue of social and environmental consequences on self-concept among learners with special needs.

1.6 Scope and delimitations of the study

Financial constraints and time set to complete the study compelled the researcher to draw the population and sample of the study from Central Province only. In addition, the study encompassed only three categories of learners with special needs; the deaf, the visually impaired and the physically handicapped instead of all eight categories. These three categories were chosen because they are readily identifiable in the society. Due to the nature of their identifiable impairments, they are more prone to marginalization as they may not be expected to participate competitively in the society.

1.7 Rationale for the study

The researcher’s rationale was that self-concept is a learned construct. Any behaviour that is learned can be unlearned. Theorists such as Freud (1927), Erikson (1959), Rogers (1987), and Rotter (1982) argue that self-concept has
a developmental aspect whereby it is more enhanced and sharpened with age. They also state that self-concept stabilized around the adolescent stage. However, they also insist that it is still responsive to change as it reacts to different environmental experiences.

The researcher rationalized that structuring the educational environment of learners with special needs in a way that nurtures self-concept is of paramount importance. Berne (1981), asserted that nurturing self-concept is like watering a plant for healthy growth.

1.8 Definition of terms

Blind: Those who have no sight or whose sight is so defective that they need special teaching methods such as braille.

Deaf: Those, whose sense of hearing is non-functional or so defective that they require special intervention methods such as the sign language.

Disability: Any restriction or lack of ability to perform any activity in the manner or within the range considered normal for a human being.

External locus of control: A personal perception that holds the belief that one’s outcomes and destiny are controlled by forces outside himself/herself; most often perceived as luck or fate.

Handicap: A disadvantage for a given individual that limits and
prevents the fulfilment of a role that is considered normal (depending on age, sex and socio-cultural factors) for that individual.

**Impairment**: An identifiable defect in the basic functions of an organ or any biological part of the body.

**Internal locus of control**: A personal perception that contingency relationships which exist between one’s actions and the outcomes that follow, are the result of one’s own internal control; for instance, due to one’s ability, laziness, diligence and so on.

**Learners with special needs**: Learners who deviate from the normal functioning of regular education due to impairments or needs and as such they require special education services in order to help them realise their potential to their maximum.

**Physically handicapped**: Those who are crippled, deformed (excluding the deaf and the blind), and those, whose health problems interfere with normal functioning in regular schooling.

**Self-concept**: Attitudes towards self; one’s characteristics, abilities, feelings and thoughts.
CHAPTER TWO
LITERATURE REVIEW

2.0 Introduction

This chapter is divided into two sections. The first section consists of review of related literature from outside and inside Kenya on self-concept. The second section comprise three personality theories that formed the theoretical framework upon which this study was based.

2.1 Studies done on self-concept of learners with special needs outside Kenya

Studies done in the United States on self-concepts of persons with impairments have found conflicting results. Jervis (1959), used self-concept for a comparison of blind and sighted adolescents, 17-19 years of age. The subjects were 20 blind students from two residential schools and 20 sighted students. The findings of the study indicated no significant difference between the self-concepts of the blind and sighted as long as they were matched on all essential characteristics except blindness. This finding expressed the fact that an impairment is not an important determinant of self-concept. However, individual differences among the blind students were noted.
In Scott's seminal work on "The making of blind men (1969)," self-concept plays a central role. Three contexts in which role-learning occurs in the blind person's life are distinguished:

1. Childhood attitudes, beliefs, and values about stigmatized people, such as the blind are learned. If one is blind these become internalized and one learns to play the role of a blind person.

2. Personal interactions in encounters between seeing and blind people impress upon the latter negative and devaluing assumptions about blindness and they are internalized as part of the blind person's self-concept.

3. The network of service organizations for the blind, play an important role in the socialization of the blind. This system instils in the blind certain model behaviour patterns and attitudes based on its own beliefs and assumptions, and thus makes them into blind men (Scott, 1969). These contexts thus influence the self-concepts of persons who are blind.

Meighan (1971), also investigated self-concept of 203 adolescents from residential schools, both blind and low vision. His findings indicated an extremely negative direction and contradicted earlier findings. Meighan asserted that their unique self-concept is interpreted as the result of the appraisal of significant others. This indicated that blindness has a definite and distinct effect upon the development of personality.
Warren (1984), in his review of these findings, suggested that the differences in the findings could be attributed to some components of self-concept such as locus of control. Warren stressed, assuming that a positive self-concept is demonstrably advantageous, careful evaluation of variables that affect aspects of self-concept is needed in order to make suggestions about ways to enhance the positive self-concept of the blind child. Likewise, Meyen and Skrtic (1995), asserted that learners with physical disabilities should be provided with opportunities for social maturation, for developing positive and healthy self-concepts and for appropriate self-expression. They posited that the classroom can give learners the encouragement they need to explore their own attitudes towards themselves. Other researchers who have expressed similar suggestions include; Mangold (1982), Chapman (1988), Hattie (1992), and Brown (1993).

In a study with deaf children, Meadow & Schlesinger (1972), found that deaf children whose parents were deaf rated superior in maturity, responsibility and independence than deaf children of hearing parents. The children also scored significantly higher on self-image. Deaf children whose parents had high levels of educational achievement obtained the lowest self-image scores.

Meadow (1976), interpreted these results to mean that the higher parental expectations when not attainable may result in negative self-concept. The basis of psychological and social adaptation problems faced by deaf children
lies in the poor communication skills they possess. They also experience poor academic attainment and poor levels of success which all contribute to lowered self-image and thus a negative self-concept (Cruickshank, 1980).

Weinberg-Asher (1976), also did a study on college students with physical impairments comparing them with their able-bodied counterparts. The findings of this study indicated that students with impairments saw themselves in much the same way as their counterparts despite the fact that they were expected to be less intelligent, less cheerful, less popular, less aggressive, less happy, lacking in social interactions, more courageous and so forth. These findings reaffirmed that self-concepts do not directly correspond with others’ expectations and views. Some impaired persons are able to give differentiated weight to opinions of others in order to support a more adequate self-concept. They modify their own values, they learn to sort out the views of others from their own and are selective of their associates (Wright, 1984). However, some people are more successful in developing and preserving a basically positive self-concept than others irrespective of whether they have impairment or not.

2.2 African indigenous education (AIE) in Kenya and self-concept

According to Getao (1996), African indigenous education (AIE) is the education system that existed in Africa before the introduction of what is today modern formal education. The education was considered indigenous
because it was born of the African scene as opposed to modern formal education, which was introduced by Europeans especially missionaries. So indigenous African education means the kind of educational process that originated in Africa.

Before the arrival of Europeans and Arabs in Kenya, African indigenous education (AIE) aimed at fostering self-concept and individual identity through facilitating knowledge, skills, attitudes, beliefs, values and practices of its society. African people also learnt how to adjust to various situations that confronted them in their environment (Getao, 1996).

AIE was total. Elders and others, who studied developmental milestones, were scientific and efficient in determining timing and sequencing of learning tasks. The curriculum included every aspect of life in a society and nurtured self-concept in that it enhanced self-confidence in the child through facilitating appropriate tasks according to the child's age and ability. Careful and patient instructions ensured competence, which perpetuated development of positive self-regard and high levels of self-esteem. These are components of a healthy self-concept.

This carefully arranged education was more focused on a normally developing child rather than on an impaired child. From the beginning of time, in most societies, children with visible physical impairments were killed at birth (Lowenfeld, 1973). This was true, also, in parts of Africa. Those who survived were not perceived as possible functional members of
the society. Parents of such children viewed themselves as undergoing a
curse or a punishment for possible wrong deeds that sometimes could not be
traced. Myths, prejudices, negative attitudes about dependency and
discriminations of impaired persons were prevalent and these hindered
positive inclusion of them in the society. Such attitudes may not be
completely eliminated even within the present modern culture. Most parents
of impaired children may still perceive them as far below educational and
economic competencies. Thus, the perpetuation of the dependency syndrome
continues.

One of the objectives of AIE was to make a person a functional member of
society. Education facilitated development of latent skills through work and
play. Opportunities were afforded with patience so that a child could learn to
control and manipulate its body in performing specific acts. Intellectual
capacity development was cultivated through mental exercises such as the
use of proverbs, riddles, poetry and so on. Character building was
emphasised according to the society’s concept of what is good and bad
character. Oral instructions usually in the form of stories depicting the
desired character were used. Punishment and rewards were methods that
were used to guide individuals to the desired character.

AIE also aimed at fostering an individual’s identity. This was done through
instructions about one’s family, other families, the clan system, and
community relationships. Through this kind of teaching, the self-concept of
the community would be communicated. Education was not relegated to a single institution but to the whole community as the situation provided (Getao, 1996). However, the parents had the central role in the education of their offspring and as such facilitated all possible experiences that fostered the skills, knowledge, attitudes, values, beliefs and dispositions, which were necessary for communal life. Education inculcated in the child responsibility to participate as a "social atom which was capable of entering into social relations with other social atoms which made up a society" (Getao, 1996).

Individualism as practised in AIE, guided persons through the stream of tribal life that fostered the latent gifts of personality. This implies that individual talents were nurtured but controlled by societal norms of what was accepted and what was not. This revelation indicates that one is born with a potential to be an individual but the process of learning and working with others activates it. Cognitive learning influenced self-concept in that a person, by working with others learnt socially acceptable behaviours that facilitated better adjustment in his or her environment. Although community life was held supreme one was able to practice individualism to a certain degree. After that, one had to choose between being ostracised by the society or staying within its limits. What one learnt was to recognise the limits within a social order and to decide whether to observe the limits or go beyond them and endure the consequences. This kind of education was facilitated through social and cognitive learning by observation of what others in the child's environment were doing.
Western theorists, such as Bandura (1978; 1987;) and Rotter (1982) have also researched on this human phenomenon of learning by observation, presenting their theories of social learning as important aspects in personality development. These theories support the AIE idea that human beings are capable of cognitively assimilating events in their environment through observation and perceiving the events as bases for adjustment in order to be properly adapted in their environment.

2.3 Modern formal education in Kenya and self-concept

On the other hand modern formal education is a system that has been entrusted to professionals with an expectation that every aspect of learning will be taken care of by them. It has influenced change from indigenous education in the total environment to schooling in a particular setting. In Africa, however, there is a conflict between modern formal schooling and informal education in the social environment including the home, which reduces the effectiveness of formal education. The reduction in the effectiveness of education can indirectly be manifested in the learners through loss of self-confidence and hence low self-esteem.

Two factors that might contribute to this conflict include wrong timing and incorrect sequencing of learning tasks. Impaired children, especially if they are neglected in their pre-school years, are likely to experience failures due to wrong timing. This is especially evidenced when developmental lags are
present as a result of sensory as well as central nervous deficits (Kennedy, 1990 and Tuttle & Ferrell, 1995). Perhaps one way to maximise learning within our Kenyan education system, and raise the level of self-esteem in our students is through a thorough understanding of the conflict between modern formal schooling and informal education at home and in the community. Then ways and means might be explored on how to resolve it for the benefit of the learner and the society in general (Getao, 1996).

This study focused on the effects of the locus of control on the self-concept and aspirations of learners with special needs. These learners' potentials may not be realised due to external and internal factors that can influence their self-concept. The external factors included the experiences the learners derive from socializations within their environment, with parents, siblings, caregivers, teachers and peers. The learners' perceptions, feelings and understandings of their roles in the society comprised their internal factors.

2.4 Studies done on self-concept and aspirations of learners with special needs in Kenya

Conflicting findings have been evidenced among the studies conducted on self-concept and aspirations of learners with special needs in Kenya. Kamau (1986), investigated occupational aspirations of physically handicapped secondary students and job placement of those already working. She examined possible social factors such as sex, parental background, curriculum, self-concept and social attitudes as they affect occupational
aspirations. The study aimed at investigating whether the society considers the occupational aspirations of the physically handicapped while placing them in jobs. The findings of this study indicated that physically handicapped persons had high perceptions of themselves (positive self-concept) and were willing to contribute and compete with others. However, their aspirations were stunted by the society’s stereotyped decisions.

Muriithi (1996), did a similar study on expectations of handicapped students and their teachers in the learning and teaching of science subjects in Kenyan secondary schools for the physically handicapped. Among the variables explored were students’ academic self-concept in science subjects and their perceptions of a scientist. The study found that students and teachers had positive images of science, but morale and self-esteem were lowered in the area of practical examination. These findings were attributed to the difficulties experienced by the handicapped students when handling equipment in practical examinations and also because the examination results are used for making very serious decisions, such as selection for higher education.

Mwathi (1998), conducted a study on the relationship between self-concept and educational aspirations of disabled persons. The study sample comprised 120 subjects drawn from secondary schools catering for persons who were deaf, blind and physically handicapped. Results of this study revealed that there is a significant positive correlation between self-concept and
educational aspirations of disabled persons. Significant differences were also found in both self-concept and aspirations across gender and disability type. The study suggested that disabled persons have negative self-concept and low aspirations.

In general, the few studies that have been done within Kenya in this area have not given consistent findings. These findings, like those found elsewhere, suggest that there are aspects of self-concepts of persons with special needs that have not yet been explored, which influence their self-concept. It is beyond the scope of this study to be able to exhaust every aspect that might influence self-concept. However, an attempt was made to explore the learner’s locus of control and the relationship between locus of control and self-concept.

Research done by major personality theorists such as Rotter (1982), Carl Rogers (1976) and others indicate that contradictory findings of studies done on self-concept may result from failure to recognise the dynamic nature of the adjusting to life process and its consequent interactions with positive self-concept. This study could have been limited by the same complications.

2.5 Construct validation among Kenyan learners on self-concept

Shavelson and others (1976), define self-concept broadly as “a person’s self-perceptions formed through experiences with and interpretations of his or her
environment. These perceptions and interpretations are influenced especially by evaluation by significant others, reinforcements and attributions for individual’s own behaviour. According to Shavelson et al., (1976), self-concept is not an entity within a person but a hypothetical construct that is potentially useful in explaining and predicting how a person acts.

Mwaniki (1973), carried out an investigation to validate self-concept as a construct in Kenyan learners in comparison to American children. She argued that the values of the culture in which a child is raised seem to have profound effects upon the behaviour and personality of the child. These are important aspects in regard to the development of one’s self-concept. She asserted that American children are brought up in a highly advanced scientific technology culture. These children are predisposed to high competition in terms of future employment, cash economy, and the nuclear family settlement patterns. Such exposure would influence children’s self-concepts into being more self-centred.

On the other hand, Kenyan children are brought up in a basically agricultural country. They are trained to support one another and give help in a communal family where kinship is very important. The difference would also account for different tasks assigned to these children in their respective cultures. Mwaniki therefore, administered to male and female secondary school learners a Self-Concept Inventory (SCI) by Sears (1963), using Form A and Form B, under sub-headings of physical ability, mental ability and
social relations items. The findings of this study indicated that Kenyan learners understood items of measurement, were certain about their feelings towards these measures and thus responded consistently.

The study also investigated the relationship between self-concept and gender. The findings of the study indicated no significant difference between males’ and females’ self-concept despite the differential roles that girls take in Kenyan cultural settings. In addition, Hoffman & Hurst (1990), in their exploration of gender and stereotypes also suggested that differences usually found between males and females arise from rationalization rather than perception.

2.6 Theoretical framework

This comprises three personality theories by Rotter (1982), Carl Rogers (1987) and Bandura (1978).

2.6.1 Rotter’s social learning theory

In 1982, Julian B. Rotter formulated a learning theory that is built on four concepts; behaviour potential, expectancy, reinforcement value and psychological situation. Rotter calls his work the Social-Learning Theory to indicate his belief that we learn primarily through social experiences. Behaviour potential refers to the likelihood that a specific behaviour will occur, relative to other behaviours that an individual could display in a given situation. Behaviour includes in this case not only acts that can be observed directly but also internal cognitive processes that cannot be observed directly
but can be inferred from overt behaviour. Expectancy refers to a person’s belief that, if he or she behaves in a certain way in a given situation, a predictable reinforcement will follow. Reinforcement value refers to the degree of preference for one reinforcement over another. That is, we have preferences for different reinforcements, with current reinforcements associated to the past ones out of which we develop expectancies for future reinforcements.

The psychological situation is a coalition of our internal and external environment...that is, of cognitive variables and external stimuli. Behaviour can be predicted only from the psychological situation and not from the motives or traits that make what some theorists call a core of personality (Rotter, 1982). Holding firmly on this, Rotter posits that personality is continually changing as a result of our experiences, but it also has a high degree of stability because it is influenced by past experiences. He also asserts that our psychological needs are learned and social in origin in that they depend on other people, particularly parents, for their satisfaction and reinforcement.

Rotter posits six categories of needs (Rotter, Chance & Phares, 1972). They are; need for recognition and status, need for protection, need for dominance, need for independence, need for love and affiliation and need for physical comfort. Rotter carefully points out that his concept of need does not refer to any physiological or psychological arousal or deprivation, but rather it refers
to the direction of behaviour which is inferred from the effects of reinforcement on the behaviour.

A major aspect of Rotter’s system is the belief about the source of control of our reinforcements. Rotter’s research has shown that some people believe that reinforcements are dependent on their own behaviours; others think reinforcements are controlled by outside forces. People who have a personality variable called “internal locus-of-control” believe the reinforcements they receive are a function of their own behaviours and attributes. Externally oriented people are convinced that they are powerless with respect to these outside forces (Schultz, 1990).

Our locus of control will have a great influence on our behaviour. External locus-of-control persons, who believe that their own behaviour or skills will make no difference in the reinforcements they receive will not see the value of putting forth any effort to improve their situation. They have little belief or faith in the possibility of controlling their own lives in the present or in the future.

Research has shown that people who are internally oriented believe that they have a firm control over their own lives, and they behave accordingly. They perform at a higher level, are less susceptible to attempts to influence them, place a higher value on their personal skills and achievements, and are more
alert to environmental cues that they can use to guide their behaviour. They may also enjoy greater mental health (Phares, 1976).

Rotter's position on the question of uniqueness versus universality of behaviour is reflected in his concept of the psychological situation. This posits that each one of us develops a unique view of the world, interpreting and reacting to external stimuli in terms of our perceptions of them. It follows then, that each of us lives and functions in a different psychological situation.

Research by Coleman et al., (1966) indicated significant racial and social class differences found in performances on the Rotter (I-E) Scale in the United States. Generally, persons in lower social classes who are members of minority groups have a tendency to hold an external orientation, believing that they have little or no control over the events and forces in their lives. This finding confirmed earlier findings by Battle & Rotter (1963), which had indicated that lower-class African-American children were more externally oriented than the lower- and middle-class white children or middle-class African-American children.

Since learners with special needs are considered a minority group, they might be susceptible to external orientation. In a variety of ways, it seems more desirable to have an internal rather than an external locus of control. Evidence suggest that these orientations are learned. There was need
therefore to explore how experiences that foster external orientation can be minimised in order to nurture internal locus of control.

2.6.2 Carl Rogers’ person-centred theory
Carl Rogers developed the person-centred or client-centred theory. He investigated children's behaviour in relation to external factors which included family environment, health, intellectual development, economic, and cultural influences as well as social and educational background. These factors were meant to determine whether a child was healthy and constructive, unhealthy and destructive or delinquent. Rogers also investigated an internal influence; the child's self-understanding or self-insight (Rogers, 1951). The findings of this study indicated that the factor which most accurately predicted later behaviour was self-understanding.

Rogers postulated that each person has a private experiential world which includes not only the present experiences but also memories of past experiences that actively guide the person's perceptions of the moment. He also postulated that higher levels of development sharpen and define experiential world and they lead to the formation of the self.

Rogers also asserted that the development of the "self" emerges as the child interacts with other people and distinguishes what is directly and immediately a part of oneself from what is external to oneself. As the self emerges, the child develops a need for positive regard. Positive regard
includes acceptance, love and approval from other people and notably the mother during infancy. If the mother does not bestow positive regard, an infant’s tendency toward actualisation and enhancement of self is hampered. This marks the beginning of internalization of the attitudes and behaviours of others and the feedback refines the child’s self-concept.

Rogerian conditions of worth refer to an individual’s belief that he or she is worthy of affection only through expressing desirable behaviours and attitudes and refraining from expressing behaviours that bring disapproval from others. This situation, which emanates from having internalised their parents’ norms in their positive self-regard, enables children to view themselves as worthy or unworthy according to terms defined by the parents. In this way, children inhibit their own development by having to live within the confines of their conditions of worth.

2.6.3 Bandura’s social cognitive learning theory

Bandura developed this theory in 1978. He introduced the notion of triadic reciprocity (Bandura, 1986), in which behaviour, cognitive factors and environmental factors operate as “interacting determinants” of one another (Schultz, 1990). Bandura views the “self” as a set of cognitive processes concerned with thought and perception. Self-reinforcement is also seen as important as reinforcement administered by others. Bandura’s self-efficacy (or his version of self-concept), refers to the ability to control events in one’s life. Persons low in self-efficacy feel helpless and worthless and will give up
quickly when they encounter obstacles. Bandura summarised triadic reciprocity in his three-way relationship (Bandura, 1978) involving the environment, internal factors and behaviour to specify that cognitive processes and other personal factors influence behaviour (Schultz, 1990).

L'Ecuyer (1981), Gergen (1990), Jackson (1994) and Hurtup (1998), are some of the researchers who have studied this triadic reciprocity and have expressed the impact of social relations, social acceptance, social understanding and the inscription of self as important aspects of the development of the self-concept through the lifespan.
Figure 2.2 The researcher's conceptual framework of factors that influence the selection of locus of control of learners with special needs.

- **Self-concept**
  - Positive
  - Negative

- **Aspirations**
  - Recognition-status
  - Social acceptance
  - Independence
  - Dominance
  - Love and affiliation
  - Comfort and security

- **Locus of control**
  - Internal
  - External

- **Cultural background**
  - Expectations
  - Limitations
  - Attitudes
  - Norms

- **Societal expectations**
  - Functionalism
  - Competition

- **Inclusion vs exclusion**
  - Accommodation
  - Discrimination
  - Stereotypes

Behaviour is influenced by personal characteristics affecting one's aspirations. Differential treatment is influenced by societal expectations and the environment.

All these factors constitute the learners' external experiences and internal cognitive processes that are formulated in order to develop their attitudes, feelings and perceptions. These in turn impel the learners to choose particular loci of control in which to attribute their successes and failures.
This study utilised the internal-external locus of control (I-E) scale by Rotter (1966) to assess locus of control and semantic differential scale to assess self-concept of learners with special needs in relation to other selected variables. These variables are academic achievement, learners' aspirations, home background and gender.

2.7 Research hypotheses

1. There is no significant relationship between locus of control and self-concept of learners with special needs.

2. There is no significant relationship between locus of control and academic achievement among learners with special needs.

3. There is no significant relationship between self-concept and academic achievement among learners with special needs.

4. There is no significant relationship among locus of control, self-concept and academic achievement of learners with special needs.

5. There is no significant difference between male and female learners in their locus of control orientations

6. There is no significant difference between male and female learners in their self-concept

Secondary exploratory analysis was used to establish the relationship between locus of control, self-concept and home background and aspirations among learners with special needs.
CHAPTER THREE
RESEARCH METHODOLOGY

3.0 Introduction
This chapter describes the methods that were employed to find answers to the research questions listed in chapter one. This description was undertaken under seven sub-headings; research design, population, sample, instrumentation, data collection, data analysis and pilot study.

3.1 Research Design
The design that was used in this study was a correlational research design to investigate the effects of locus of control on self-concept and their relationships to some selected variables namely academic achievement, home background, learners' aspirations, and gender among learners with special needs.

Bordens and Abbot (1988), describe a correlational design as a research design that allows the researcher to find out whether two or more variables covary, and to establish the direction of any observed relationship. The strategy involves developing measures of the variables of interest and
collecting data. The researcher does not manipulate any independent variable rather he or she simply measures two or more variables and then determines if a correlational relationship exists between them. The choice of the design was based on its ability to explore correlational relationships among variables that cannot be manipulated experimentally. The variables of this study are locus of control and self-concept as independent variables, while academic achievement will be the dependent variable.

3.2 Population of the study

The study was conducted in institutions for learners with special needs in Central Province. Learners with special needs are classified into various categories, among the major ones being the blind, deaf and the physically handicapped. Within each category, there is a variation in the degree of disability ranging from mild to profoundly impaired learners. Such learners are educated in special institutions or in integrated programmes. The choice of special institutions allowed the researcher to have sufficient subjects to sample, unlike in the integrated programmes where the learners are very few.

Three categories of impairments, namely, the blind/visually impaired (VI), the deaf and the physically handicapped (PH) were selected. It was decided to include these three categories because first, they were readily identifiable and thus facilitate easier communication as to who the study subjects were. Secondly, due to the fact that majority of learners in these three categories
had normal mental ability to pursue education to high levels thus they had a chance to compete with their able-bodied counterparts.

### 3.3 Sampling technique

A purposive sample was selected from all the three secondary schools catering for the VI, deaf and the PH in Central Province. Sampling of subjects was done according to impairment type and gender. Due to the small number of deaf learners, all the students in that category were included in the study so that they could present a reasonable number of subjects. Below is a table of final composition of the study sample distribution.

<table>
<thead>
<tr>
<th>INSTITUTION</th>
<th>IMPAIRMENT TYPE</th>
<th>MALE</th>
<th>FEMALE</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>THIKA HIGH SCHOOL FOR THE BLIND</td>
<td>V.I</td>
<td>45</td>
<td>37</td>
<td>82</td>
</tr>
<tr>
<td>REV.MUHORO SECONDARY SCHOOL FOR THE DEAF Nyeri</td>
<td>Deaf</td>
<td>15</td>
<td>19</td>
<td>34</td>
</tr>
<tr>
<td>JOYTOWN SECONDARY SCHOOL FOR THE PH THIKA</td>
<td>P.H</td>
<td>29</td>
<td>17</td>
<td>46</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>89</td>
<td>73</td>
<td>162</td>
</tr>
</tbody>
</table>

### 3.4 Instrumentation

Two standardized instruments were used to collect data. A standardized I-E Scale by Rotter (1966) was used to assess learners' locus of control orientations while learners' self-concept was measured using a self-concept
Semantic Differential Scale modified from Olowu (1983). A questionnaire was also used to collect demographic data of the learners. The details about the scales are given below.

3.4.1 Internal vs. external (I-E) Scale

The study used an Internal-External Locus of control (I-E) Scale by Rotter (1966) for assessing the learners' locus of control. Locus of control refers to a generalized expectancy about the source of the reinforcement one receives from the environment. Internal locus of control indicates the belief that one's reinforcements are brought about by one's own behaviour and attitudes. External locus of control indicates that reinforcements are in the hands of other people, fate or luck and that one is powerless with respect to these outside forces. Rotter chose this behavioural method to hypothesize that as subjects selected one alternative over another, they indicated a belief that the chosen alternative has a higher expectancy of producing reinforcement. He therefore developed a self-report inventory to assess the generalized expectancy; internal versus external locus of control.

The "I-E" Scale has twenty-nine (29) pairs of statements. The respondent chooses from each pair a statement that corresponds with his or her description of the generalized expectancy. The I-E Scale is self-administered and can be completed in about fifteen minutes. It has no lower or upper age limits and thus can be used for a wide range of respondents. Scoring is done
by aggregating the number of external statements selected by the respondent. The maximum score is 29 while the minimum score is 0.

Over 50% of the internal-external locus of control investigations have used the I-E Scale. Studies indicate there are individual differences in perceptions about one's control over one's destiny and that the I-E Scale is sensitive to these differences. The I-E has also been extensively used to investigate the locus of control of low socio-economic and minority groups to explore their at-risk situation of being overwhelmed by external factors thus predisposing them to external locus orientation. The I-E was also pretested before commencement of the study with learners with special needs in upper primary to increase the validity of the instrument.

Coleman et al., 1966, indicated significant racial and social class differences in the performance on the I-E Scale. He found that in general persons in lower social classes and who are members of minority groups, hold an external orientation, believing that they have no control over the events and forces in their lives. On the other hand, Phares (1976), suggests that internally oriented people may enjoy greater mental health.

The choice of the instrument was based on the assumption that learners with special needs, being a minority group are more likely to demonstrate similar behaviours when expressing their generalized expectancies even though
slight cultural biases are inevitable. The instrument was pretested for reliability and validity during the pilot study.

3.4.2 Self-concept semantic differential scale

A modified Semantic Differential Scale (SDS) was used to assess the self-concept of learners with special needs. The SDS covers six self-areas adapted from Olowu (1983). Eighteen bipolar adjectives are distributed among the self-areas in a linear scale similar to a Likert rating scale. The respondents were expected to rate themselves along a continuum between the two adjectives to attain a minimum score of 1 and a maximum score of 5 for each item as illustrated below.

```
<table>
<thead>
<tr>
<th>Beautiful</th>
<th></th>
<th></th>
<th></th>
<th>Ugly</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>
```

The respondent put a mark along this continuum to indicate a position in which he/she felt associated. Scoring of the modified SDS was done by adding up the values indicated by the respondent’s marks for all the eighteen items. The minimum score that a respondent could attain was 18 while the maximum score was 90. To get the mean score, the mid-point score on the scale 3 is multiplied by the number of items 18. Thus 3 x 18 = 54. A score above 54 implied a positive self-concept. Likewise a score below 54 indicated a negative self-concept. The validity and reliability of this scale was based on the fact that the scale had been locally used on a population similar to the subjects of this study in a study by Mwathi (1998).
3.4.3 Background information

A questionnaire for students was used to collect demographic data. The questionnaire comprised fourteen structured items which were coded for purposes of analysis. The questionnaire was pretested to develop the codes and data collected was used for secondary analyses to explore the effects of demographic variables on both locus of control and self-concept measures.

3.5 School achievement records

The learners' academic achievement records were collected from their institutions with the Principals' permission. The records were the previous year's results that represented the status of the learners' performance after completion of the year's learning experiences. Their records were assessed with their locus of control and self-concept as the major variables of interest as well as aspirations, gender and home background as secondary exploratory data.

3.6 Data collection technique

The data collection was done in the month of March, 2001. In the first week, the researcher visited the institutions involved in the study, to make arrangements on the appropriate dates for data collection. In the following three weeks, the researcher visited one institution for only one day each week.
Data were collected by the researcher with the help of two trained research assistants. Respondents completed three questionnaires as the researcher and the assistants administered them. Items on the I-E Scale, Semantic Differential Scale and the demographic data questionnaire were read one at a time and respondents were allowed sufficient time to record their responses. This technique was used to ensure that subjects understood the items. It also allowed additional time for braille readers. All the data collection instruments were prepared in large print and braille for the blind, while the physically handicapped and the deaf used regular printed materials. An interpreter was sought to ensure that deaf learners were appropriately instructed in sign language.

Data were collected in one session for the visually impaired and one session for the physically handicapped. Each session took about two hours to complete because of the time used to collect and issue different questionnaires. Two sessions were allowed for the deaf learners who took about two and a half hours to complete the questionnaires. The first session was one hour before lunch and one and a half hours after lunch.

All respondents were allocated numbers to make it easier for the researcher to put each respondent’s questionnaires together in an effort to avoid data loss. However, a few questionnaires were still lost because respondents forgot to put numbers in all the three questionnaires, and this made it difficult for the researcher to match them with the performance records. Due
to this data loss, the number of sample fell to 155 instead of the initial number of 162 subjects. The percentage of data loss was 4.4%. This data loss was quite small and could not have affected the results of the study. Students' past achievement records were collected from the schools' records.

3.7 Data analysis plan

Data were collated, coded and entered in the computer. An SPSS package was used to analyse the data. Descriptive analysis was used to describe the data. Correlations were calculated to explore relationships among the variables of interest. Appropriate inferential statistics were calculated to test the following hypotheses.

$H_0_1$, $H_0_2$ and $H_0_3$ were tested using Pearson's correlation coefficient. $H_0_4$ and $H_0_5$. A t-test was used to compare means of males and females to establish whether there was any significant difference based on gender in their locus of control orientations and self-concept. $H_0_6$ was tested by use of multiple regression analysis.

Multiple regression is a versatile technique for linear relationships. The variables include all the variables one of which is singled out as the dependent variable while the others are regarded as predictors. It offers many options for descriptive statistics, inclusion and exclusion criteria and residual analysis. Multiple regression analysis has the ability to handle certain situations that are difficult to manage through ANOVA. It is most useful to examine plots of residual before the results are used or given serious interpretations. These considerations were put up for this study.
CHAPTER FOUR

FINDINGS OF THE STUDY

4.0 Introduction

This chapter presents the results that were obtained in this study. The chapter is divided into three sections. The first section contains descriptive analysis while the second section comprises statistical analysis and hypotheses testing. The third section presents secondary exploratory analysis.

4.1 Descriptive analysis

4.1.1 Learners' locus of control

Data were collected from a sample of 155 secondary school learners with special needs. The learners were in three categories namely the visually impaired, deaf and physically handicapped. The visually impaired learners comprised 42 males and 33 females making a total of 75 learners. The deaf were 34 in total with 15 males and 19 females. The physically handicapped group had 29 males and 17 females totalling 46.

Learners' locus of control was measured using an internal-external (I-E) locus of control scale by Rotter (1966). The maximum score possible from this scale is 29 while the minimum score is 0. To get mid-point for the scale, the score between 0 and 29 is taken, which is 15. A score above 15 implies an internal locus of control, while a score below 15 indicates an external
locus of control orientation. Analysis of the results obtained shows that the maximum score earned was 25 and the minimum was 8 across all the three categories. The following table shows the mean and standard deviation for each category of impairment.

Table 4.1: Frequency, mean and standard deviation of locus of control scores.

<table>
<thead>
<tr>
<th>IMP. TYPE</th>
<th>FREQ.</th>
<th>MEAN</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLIND</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MALE</td>
<td>42</td>
<td>16.57</td>
<td>2.91</td>
</tr>
<tr>
<td>FEMALE</td>
<td>33</td>
<td>18.21</td>
<td>7.24</td>
</tr>
<tr>
<td>TOTAL</td>
<td>75</td>
<td>17.39</td>
<td>2.73</td>
</tr>
<tr>
<td>DEAF</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MALE</td>
<td>15</td>
<td>15.27</td>
<td>2.63</td>
</tr>
<tr>
<td>FEMALE</td>
<td>19</td>
<td>15.47</td>
<td>2.50</td>
</tr>
<tr>
<td>TOTAL</td>
<td>34</td>
<td>15.37</td>
<td>2.52</td>
</tr>
<tr>
<td>PH</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MALE</td>
<td>29</td>
<td>17.69</td>
<td>3.50</td>
</tr>
<tr>
<td>FEMALE</td>
<td>17</td>
<td>19.23</td>
<td>2.91</td>
</tr>
<tr>
<td>TOTAL</td>
<td>46</td>
<td>18.46</td>
<td>3.35</td>
</tr>
</tbody>
</table>

From the data presented in Table 4.1 above, it can be observed that on the overall, the subjects under study had internal locus of control. Their mean scores were above the I-E Scale's mid-point of 15. Comparatively, the physically handicapped learners indicated the highest internal I-E scores. Specifically, 91% of the cases scored above 15 suggesting that they were
more internally oriented than the other two categories. The blind/visually impaired learners ranked second with 64 out of 75 learners which is about 85% of the group scoring above 15. Only 11 learners or 15% indicated having external locus of control. Deaf learners ranked third with only 18 out of 34, that is, 53% of the cases indicating internal locus of control whereas the remaining 16 learners or 47% had external locus of control. A closer look at their means and standard deviation reveals that males had slightly lower means than females. However, this was not statistically significant.

4.1.2 Learners’ self-concept
Data were also collected from the 155 learners on their self-concept. The learner’s self-concept was measured by a scale adapted from Olowu (1983). The maximum score earned was 70 and the lowest or minimum score was 41 across the categories. Data were explored according to gender and impairment type as shown in Table 4.2. The table indicates that generally, the subjects under study had positive self-concept. Among PH learners 84.8% of the group scored above 54 (the scale’s cut-off point) indicating the highest positive self-concept. Only 15.2% scored below the mean to imply negative self-concept. Female learners scored higher mean than males and their variance was less than that of the males. There was a significant difference between males and females in their self-concept scores, suggesting that females were more positive in their self-concept than males. The VI had 62 out of 75 which forms 83% of the group scoring above the cut-off point while only 17% scored below this cut-off. The standard
deviation on the table, implied that responses given by females were more varied than those given by males.

Deaf male learners scored below 54 implying that they had negative self-concept. Female learners scored slightly above this cut-off showing that they were on the borderline of positive self-concept. A look at the standard deviation reveals that male's variance was less than that of female learners. However, the researcher had also noted some communication barriers when items were being interpreted in sign language, hence implying that their restricted communication skills could also contribute to lower performance in the scale. Specifically, deaf learners indicated a fifty-fifty performance on the self-concept scale.

Table 4.2: Frequency, mean and standard deviation of self-concept scores

<table>
<thead>
<tr>
<th>IMP. TYPE</th>
<th>FREQ.</th>
<th>MEAN</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BLIND</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MALE</td>
<td>42</td>
<td>58.24</td>
<td>5.63</td>
</tr>
<tr>
<td>FEMALE</td>
<td>33</td>
<td>57.15</td>
<td>5.30</td>
</tr>
<tr>
<td>TOTAL</td>
<td>75</td>
<td>58.27</td>
<td>5.48</td>
</tr>
<tr>
<td><strong>DEAF</strong></td>
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<tr>
<td>MALE</td>
<td>15</td>
<td>53.33</td>
<td>4.92</td>
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<tr>
<td>FEMALE</td>
<td>19</td>
<td>55.36</td>
<td>5.45</td>
</tr>
<tr>
<td>TOTAL</td>
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<td>54.44</td>
<td>5.24</td>
</tr>
<tr>
<td><strong>P H</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MALE</td>
<td>29</td>
<td>58.52</td>
<td>6.23</td>
</tr>
<tr>
<td>FEMALE</td>
<td>17</td>
<td>63.65</td>
<td>4.17</td>
</tr>
<tr>
<td>TOTAL</td>
<td>46</td>
<td>60.41</td>
<td>6.04</td>
</tr>
</tbody>
</table>
4.1.3 Learners academic achievement

The researcher also collected academic performance records from the learners institutions. The learners’ academic achievement levels were explored across ten subjects to allow for more objective conclusions as to their status. Mean achievement was calculated according to gender and impairment type. Table 4.3 presents the results.

Data presented by table 4.3, suggest that VI learners perform better than the other two categories of impairment. The performance level does not show a significant difference between male and female learners. However, the standard deviation on the table does reveal that the performance of males is more varied than that of females. Thus, there is a possibility of very high performers and very poor performers among the male learners.

The mean academic achievement of deaf learners was substantially below that of the other two categories indicating that their achievement is quite low. The mean for males was 31.19 slightly higher than that of females which is 28.83. The table also reveals that there is a large variance suggesting wide range of academic achievement. This was observable for both males and females. The status of academic achievement among the PH learners was slightly lower than that of the blind but better than that of deaf learners. The means above implied that males’ achievement was higher than for the females. The standard deviation above revealed that there was a large
variance in their achievement thus, there are probably very high and very low achievement scores among this group of learners.

Table 4.3: Frequency, mean and standard deviation of academic achievement scores

<table>
<thead>
<tr>
<th>IMP. TYPE</th>
<th>FREQ.</th>
<th>MEAN</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLIND</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MALE</td>
<td>42</td>
<td>53.71</td>
<td>12.19</td>
</tr>
<tr>
<td>FEMALE</td>
<td>33</td>
<td>52.93</td>
<td>9.68</td>
</tr>
<tr>
<td>TOTAL</td>
<td>75</td>
<td>53.37</td>
<td>11.09</td>
</tr>
</tbody>
</table>

| DEAF      |       |       |      |
| MALE      | 15    | 31.19 | 16.66|
| FEMALE    | 19    | 28.83 | 15.76|
| TOTAL     | 34    | 29.87 | 15.96|

| PH        |       |       |      |
| MALE      | 29    | 51.05 | 11.52|
| FEMALE    | 17    | 46.22 | 10.32|
| TOTAL     | 46    | 49.26 | 11.23|

4.2.0 Statistical analysis

4.2.1 Relationship between locus of control and self-concept among learners with special needs

It was hypothesized in this study that there is no significant relationship between locus of control and self-concept. This was a null hypothesis that needed testing to ascertain whether it was to be accepted or rejected. To facilitate this kind of decision, Pearson correlation coefficient was calculated.
Below is the data obtained from the computation. Data were computed according to impairment type.

Table 4.4: Analysis of correlation coefficients for locus of control and self-concept by impairment type

<table>
<thead>
<tr>
<th>IMPAIRMENT TYPE</th>
<th>LOCUS OF CONTROL vs SELF-CONCEPT</th>
<th>SELF-CONCEPT vs ACHIEVEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLIND</td>
<td>0.3573**</td>
<td>0.0412</td>
</tr>
<tr>
<td>DEAF</td>
<td>-0.0772</td>
<td>0.29*</td>
</tr>
<tr>
<td>PH</td>
<td>0.0527</td>
<td>-0.0094</td>
</tr>
</tbody>
</table>

Significant at $\alpha = 0.01$

The results from Pearson correlation coefficient test in Table 4.4 above, indicate that there is no significant relationship between locus of control and self-concept among the deaf learners. The null hypothesis stated above was therefore accepted for deaf learners. It was thus concluded that locus of control has no effect on self-concept for these learners. From the same data presented above, it can also be observed that there is no significant relationship between locus of control and self-concept among physically handicapped learners. This indicates that the null hypothesis stated earlier, that there is no significant relationship between locus of control and self-concept is again accepted for this group of learners with special needs. Therefore, it could be concluded that locus of control does not affect these learners’ self-concept. However, further results presented from the data above indicate that there is high positive relationship between locus of
control and self-concept among visually impaired learners. The null hypothesis stating that there is no significant relation between locus of control and self-concept is thus rejected among this group of learners. It can therefore be concluded that these learners' locus of control orientations affect their self-concept.

4.2.2 Relationship between self-concept and academic achievement.

The third hypothesis of this study was, "There is no significant relationship between self-concept and academic achievement". This hypothesis was also tested using Pearson correlation coefficient. The coefficients were calculated according to impairment type. Table 4.5 below, presents the computed data.

Table 4.5 Correlation coefficients analysis on self-concept and academic achievement

<table>
<thead>
<tr>
<th>IMPAIRMENT TYPE</th>
<th>LOCUS OF CONTROL vs ACHIEVEMENT</th>
<th>SELF-CONCEPT vs ACHIEVEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLIND</td>
<td>0.3209**</td>
<td>0.0412</td>
</tr>
<tr>
<td>DEAF</td>
<td>0.465**</td>
<td>0.29*</td>
</tr>
<tr>
<td>PH</td>
<td>0.132</td>
<td>0.0094</td>
</tr>
</tbody>
</table>

Significant at p<0.05

From the data presented above, there is significant relationship between self-concept and academic achievement among deaf learners. The null hypothesis stated above is thus rejected for this group of learners with special needs. It can be concluded that the learners' self-concept does affect their academic
achievement. Further, Table 4.5 presents data that indicate that there is no significant relationship between self-concept and academic achievement among physically handicapped learners.

The null hypothesis stating that there is no significant relationship between self-concept and academic achievement is thus accepted for the physically handicapped learners. It can then be concluded from this results that self-concept does not affect achievement of these learners. Finally, further results presented above reveal that there is no significant relationship between self-concept and academic achievement among visually impaired learners. The null hypothesis stating that there is no significant relationship between self-concept and academic achievement is thus accepted. It can be concluded that these learners' self-concepts do not significantly affect their academic achievement.

The relationship between locus of control and academic achievement was tested among the subjects under study. It was initially hypothesized that there is no significant relationship between locus of control and academic achievement among learners with special needs. From Table 4.5, it can be observed that there is no significant relationship between locus of control and academic achievement among the physically handicapped learners. The earlier stated null hypothesis can be accepted for this category of the study. However, it was observed from the results that there was a significant
relationship between locus of control and academic achievement among deaf learners. The null hypothesis is thus rejected for this category of learners under study. This is an important finding because it reveals that the way these learners perceive the reinforcements in their environment as being either within or beyond their control affects their academic achievement.

Earlier on, it was reported that about 50% of deaf learners are externally oriented. It can thus be concluded that the low scores in academic achievement among the deaf learners is partly due to their external locus of control which renders them helpless and out of control of their situation.

From the same data above, it can also be observed that there is high positive relationship between locus of control and academic achievement among the visually impaired learners. This implies that the way learners attribute their success or failure in their achievement affects their academic achievement.

4.2.3 Relationships among locus of control, self-concept and academic achievement of learners with special needs

This study had also hypothesized that there is no significant relationship among locus of control, self-concept and academic achievement among learners with special needs. To test this null hypothesis, a multiple regression test was performed, whereby academic achievement was the dependent variable while locus of control and self-concept were entered as the predictor variables. A linear regression indicated no significant relationships between the variables. To be able to ascertain that the predictor variables potentials
were not affected by suppressor variables, a stepwise regression was performed according to impairment to remove those variables whose contributions were not significant. Below are tables presenting the results of the regression test.

Table 4.6: Multiple regression to show the interaction effect of locus control and self-concept on learners academic achievement by impairment type.

<table>
<thead>
<tr>
<th></th>
<th>BLIND</th>
<th>DEAF</th>
<th>P.H</th>
</tr>
</thead>
<tbody>
<tr>
<td>MULTIPLE R</td>
<td>0.32</td>
<td>0.47</td>
<td>.</td>
</tr>
<tr>
<td>R SQUARE</td>
<td>0.10</td>
<td>0.22</td>
<td>.</td>
</tr>
<tr>
<td>F</td>
<td>8.38</td>
<td>8.83</td>
<td>.</td>
</tr>
<tr>
<td>SIGNIF F</td>
<td>0.005*</td>
<td>0.005*</td>
<td>.</td>
</tr>
</tbody>
</table>

Significant at p<0.05

From the results in Table 4.6 above, the following observations can be made:

1. The R square of (0.22) among deaf learners implies that 22% of the total variance in academic achievement can be accounted for by locus of control and self-concept.
2. The F-value shows that the contributions made by these variables were significant at p<0.05 level of significance.
3. The R square of (0.10) among the blind learners means that 10% of the total variance in academic achievement can be accounted for by locus of control and self-concept.
4. The F-value indicates that the contribution made by these variables towards learners' academic achievement is significant at p<0.05.
This analysis was done using stepwise regression where variables that no longer show any significant contribution in the analysis are eliminated. This was evident with variables controlling for the PH learners where all the variables were eliminated. Therefore, the column for PH shows blanks. (table 4.6).

Table 4.7: Multiple regression analysis to show individual contributions of locus of control and self-concept by impairment type

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>T</th>
<th>SIGNIFICANT T</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOCUS OF CONTROL (DEAF)</td>
<td>2.97</td>
<td>0.005**</td>
</tr>
<tr>
<td>LOCUS OF CONTROL (BLIND)</td>
<td>2.89</td>
<td>0.005**</td>
</tr>
<tr>
<td>SELF-CONCEPT (DEAF)</td>
<td>0.49</td>
<td>0.63</td>
</tr>
<tr>
<td>SELF-CONCEPT (BLIND)</td>
<td>1.72</td>
<td>0.09</td>
</tr>
</tbody>
</table>

Significant at p<0.05

From the above data, it can be observed that locus of control has significant contribution to learners' academic achievement variance, among deaf and visually impaired learners at p< .01. The contribution of self-concept is not significant at p< 0.05 for the visually impaired learners, it indicates some significance at $\alpha = 0.05$ among the deaf learners.

4.2.4 Gender differences on locus of control

The fourth hypothesis of this study was that there is no significant difference between male and female learners in their locus of control orientations. To test this hypothesis, a t-test was performed to compare the means of males
and females and establish whether they differed in the manner in which they attribute their successes and failures. Analysis was done according to impairment type (Table 4.8).

Table 4.8: t-test for locus of control by impairment type.

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>BLIND</th>
<th>DEAF</th>
<th>PH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MALE</td>
<td>FEMALE</td>
<td>MALE</td>
</tr>
<tr>
<td>NUMBER</td>
<td>42</td>
<td>33</td>
<td>15</td>
</tr>
<tr>
<td>MEAN</td>
<td>16.57</td>
<td>18.21</td>
<td>15.26</td>
</tr>
<tr>
<td>t-value</td>
<td>-0.67</td>
<td>-0.23</td>
<td>-1.53</td>
</tr>
<tr>
<td>PROB. VALUE</td>
<td>0.50</td>
<td>0.82</td>
<td>0.13</td>
</tr>
</tbody>
</table>

Data presented in Table 4.8 above indicate no significant difference between males and females in their locus of control at $p < 0.05$. This is observable among all the subjects of the study across the categories.

4.2.5 Gender difference on self-concept

The fifth hypothesis stated there is no significant relationship between male and female learners with special needs in their self-concept. A t-test was again used to establish whether there is any significant difference between male and female learners in their self-concept. Table 4.9 below presents data on the t-test performed according to impairment type.
Table 4.9: t-test for self-concept by impairment type.

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>BLIND</th>
<th>DEAF</th>
<th>PH</th>
</tr>
</thead>
<tbody>
<tr>
<td>SELF-CONCEPT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MALE</td>
<td>42</td>
<td>15</td>
<td>29</td>
</tr>
<tr>
<td>FEMALE</td>
<td>33</td>
<td>19</td>
<td>17</td>
</tr>
<tr>
<td>NUMBER</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEAN</td>
<td>58.23</td>
<td>53.33</td>
<td>58.51</td>
</tr>
<tr>
<td>t-value</td>
<td>-0.67</td>
<td>-0.10</td>
<td>-3.02</td>
</tr>
<tr>
<td>PROB. VALUE</td>
<td>0.50</td>
<td>0.28</td>
<td>0.004**</td>
</tr>
</tbody>
</table>

Results from Table 4.9, show no significant difference on the basis of gender among the visually impaired and deaf learners at p<0.05. However, there is a significant difference between physically handicapped male and female learners with the female learners being more positive in their self-concept than the male learners. The significant difference is evident at p<0.01. In conclusion, the null hypothesis on gender differences in self-concept has been accepted at $\alpha = 0.05$ level of significance for the visually impaired and deaf learners. The same hypothesis is, however, rejected for the physically handicapped learners because they indicated a significant difference on the basis of gender.

4.3.0 Secondary analysis

4.3.1 Learners' aspirations

The researcher also looked at how aspirations can be related to locus of control, self-concept and academic achievement. Responses the subjects gave on students' questionnaire were explored to indicate the trend of their
aspirations. Table 4.10, explores the learners’ feelings about their academic performance in response to question 6 (see appendix C).

Table 4.10 Analysis of feelings of learners’ academic performance in relation to their locus of control, self-concept and academic achievement.

<table>
<thead>
<tr>
<th>IMPAIR. TYPE</th>
<th>SATISFIED</th>
<th>CAN DO BETTER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MEAN</td>
<td>SD</td>
</tr>
<tr>
<td>BLIND (75)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LOCUS OF CONTROL</td>
<td>16</td>
<td>8</td>
</tr>
<tr>
<td>SELF-CONCEPT</td>
<td>56</td>
<td>6</td>
</tr>
<tr>
<td>ACHIEVEMENT</td>
<td>52.08</td>
<td>12.56</td>
</tr>
<tr>
<td>DEAF (34)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LOCUS OF CONTROL</td>
<td>16</td>
<td>3</td>
</tr>
<tr>
<td>SELF-CONCEPT</td>
<td>55</td>
<td>5</td>
</tr>
<tr>
<td>ACHIEVEMENT</td>
<td>29.91</td>
<td>13.67</td>
</tr>
<tr>
<td>PH (46)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LOCUS OF CONTROL</td>
<td>10</td>
<td>-</td>
</tr>
<tr>
<td>SELF-CONCEPT</td>
<td>66</td>
<td>-</td>
</tr>
<tr>
<td>ACHIEVEMENT</td>
<td>53</td>
<td>-</td>
</tr>
</tbody>
</table>

From this table, it can be observed that among the visually impaired learners those who felt satisfied with their performance had lower means in both self-concept and achievement whereas those who felt they can do better showed some improvement. The standard deviation also reveals that their variance is not as large as that of the ones who felt satisfied with their achievement. Deaf learners did not indicate any significance difference between those who felt satisfied and those who wished to do better. Whereas, the physically handicapped learners suggested the wish to do better other than being
satisfied. Only one subject among this group indicated satisfaction with his or her achievement. It was not possible to compare what would be expected of the subjects who do not have high aspirations because this was not characteristic of the PH group.

Table 4.11: Analysis of learners academic aspirations in relation to their locus of control, self-concept and academic achievement.

<table>
<thead>
<tr>
<th>IMP. TYPE</th>
<th>FORM 4</th>
<th>DIPLOMA</th>
<th>UNIVERSITY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MEAN</td>
<td>SD</td>
<td>MEAN</td>
</tr>
<tr>
<td></td>
<td>MEAN</td>
<td>SD</td>
<td>MEAN</td>
</tr>
<tr>
<td></td>
<td>MEAN</td>
<td>SD</td>
<td>MEAN</td>
</tr>
<tr>
<td>BLIND (75)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LOCUS OF CONTROL</td>
<td>16 4</td>
<td>17 3</td>
<td>17 3</td>
</tr>
<tr>
<td>SELF-CONCEPT</td>
<td>53 6</td>
<td>59 4</td>
<td>59 5</td>
</tr>
<tr>
<td>ACHIEVEMENT</td>
<td>49.3 11.3</td>
<td>52.3 11.7</td>
<td>54.8 10.8</td>
</tr>
<tr>
<td>DEAF (34)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LOCUS OF CONTROL</td>
<td>15 2</td>
<td>15 6</td>
<td>16 3</td>
</tr>
<tr>
<td>SELF-CONCEPT</td>
<td>54 6</td>
<td>56 6</td>
<td>54 4</td>
</tr>
<tr>
<td>ACHIEVEMENT</td>
<td>24.4 13.3</td>
<td>37.6 19.8</td>
<td>40.1 12.8</td>
</tr>
<tr>
<td>PH (46)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LOCUS OF CONTROL</td>
<td>-</td>
<td>22 3</td>
<td>18 3</td>
</tr>
<tr>
<td>SELF-CONCEPT</td>
<td>-</td>
<td>58 12</td>
<td>61 6</td>
</tr>
<tr>
<td>ACHIEVEMENT</td>
<td>-</td>
<td>43.15 12.52</td>
<td>49.54 5</td>
</tr>
</tbody>
</table>

Table 4.11 above, presents data on the means and standard deviation of locus of control, self-concept and academic achievement in relation to how far the students indicated they would like to proceed in their education. From the data above, it can be observed that those learners who preferred to stop learning after form 4 had the lowest mean achievement and also had the highest variance in their performance hence the large standard deviation.
They also have lower means in self-concept. However, they are at the same range with others in their locus of control. On the other hand, learners who aspired to proceed up to university have the highest mean scores in both self-concept and academic achievement. They also show higher consistency in locus of control and self-concept. Although their academic achievement was quite inconsistent, it was relatively better than for those who want to stop their education either at Form 4 or at Diploma level. Thus, the question stated previously, can answer research questions 3 in the affirmative to indicate that aspirations are consistent with what one feels about oneself as measured by locus of control and self-concept.

The results of the students' responses to the following question (8) which sought to explore how students relate their grades to their future plans.

**Do the grades you get at school prepare you to be what you would like to be after school?**
Table 4.12: Analysis of students’ opinions of their grades.

<table>
<thead>
<tr>
<th>IMP. TYPE</th>
<th>YES</th>
<th></th>
<th>NO</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MEAN</td>
<td>SD</td>
<td>MEAN</td>
<td>SD</td>
</tr>
<tr>
<td>BLIND (75)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LOCUS OF CONTROL</td>
<td>17</td>
<td>3</td>
<td>17</td>
<td>2</td>
</tr>
<tr>
<td>SELF-CONCEPT</td>
<td>57</td>
<td>5</td>
<td>59</td>
<td>6</td>
</tr>
<tr>
<td>ACHIEVEMENT</td>
<td>52.1</td>
<td>10.3</td>
<td>57.1</td>
<td>13.0</td>
</tr>
<tr>
<td>DEAF (34)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LOCUS OF CONTROL</td>
<td>15</td>
<td>3</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>SELF-CONCEPT</td>
<td>54</td>
<td>5</td>
<td>56</td>
<td>3</td>
</tr>
<tr>
<td>ACHIEVEMENT</td>
<td>30.9</td>
<td>16.6</td>
<td>21.8</td>
<td>5.7</td>
</tr>
<tr>
<td>PH (46)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LOCUS OF CONTROL</td>
<td>18</td>
<td>3</td>
<td>19</td>
<td>5</td>
</tr>
<tr>
<td>SELF-CONCEPT</td>
<td>60</td>
<td>6</td>
<td>60</td>
<td>5</td>
</tr>
<tr>
<td>ACHIEVEMENT</td>
<td>49.7</td>
<td>11.2</td>
<td>44.4</td>
<td>11.3</td>
</tr>
</tbody>
</table>

From table 4.12, it can be observed that those subjects who felt that the grades they got from school achievement were not preparing them for what they would like to be after school had a more positive self-concept and achieved higher than those who thought otherwise. This observation can however be made among the visually impaired respondents only. The PH suggested no significant difference between the two responses. This particular observation was also evident among deaf learners. It can thus be concluded that, among the visually impaired learners, the grades they get do have some effect on their aspirations.
This observation can also answer research question 4 in affirmative that the grades these students get influence how they feel about themselves, hence it can be proposed that the grades do actually affect their self-concept. The results of students' responses to what they would like to be after completion of their formal education (question 9, appendix C) are summarized below in Table 4.13. The analysis was as usual done by impairment type so as to establish the trends in each category.

Table 4.13: Analysis of learners' vocational aspirations in relation to their locus of control, self-concept and academic achievement.

<table>
<thead>
<tr>
<th>IMPAIRMENT TYPE</th>
<th>SKILLED</th>
<th>UNSKILLED</th>
<th>NOT THOUGHT</th>
<th>I DON'T KNOW</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MEAN</td>
<td>SD</td>
<td>MEAN</td>
<td>SD</td>
</tr>
<tr>
<td>BLIND (75)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LOCUS OF CONTROL</td>
<td>18</td>
<td>2</td>
<td>17</td>
<td>8</td>
</tr>
<tr>
<td>SELF-CONCEPT</td>
<td>58</td>
<td>5</td>
<td>56</td>
<td>10</td>
</tr>
<tr>
<td>ACHIEVEMENT</td>
<td>53.8</td>
<td>10.4</td>
<td>49.5</td>
<td>12.9</td>
</tr>
<tr>
<td>DEAF (34)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LOCUS OF CONTROL</td>
<td>16</td>
<td>3</td>
<td>13</td>
<td>5</td>
</tr>
<tr>
<td>SELF-CONCEPT</td>
<td>55</td>
<td>5</td>
<td>52</td>
<td>3</td>
</tr>
<tr>
<td>ACHIEVEMENT</td>
<td>36.3</td>
<td>16.6</td>
<td>21.3</td>
<td>11.6</td>
</tr>
<tr>
<td>P H(46)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LOCUS OF CONTROL</td>
<td>18</td>
<td>3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>SELF-CONCEPT</td>
<td>60</td>
<td>6</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>ACHIEVEMENT</td>
<td>49.81</td>
<td>11.22</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Data above imply that, learners who aspired to be skilled workers performed higher than those who aspired to be unskilled workers or those who had not thought of what they would like to be after school. It can also be observed from the above data that those learners who had not thought of what they
Data above imply that, learners who aspired to be skilled workers performed higher than those who aspired to be unskilled workers or those who had not thought of what they would like to be after school. It can also be observed from the above data that those learners who had not thought of what they will be after school had the lowest means in locus of control and self-concept even though they perform better than those who prefer to be unskilled workers. Those learners who indicated that they would like to be unskilled workers achieved substantially below the other subjects who had indicated otherwise and their standard deviation indicated that there could be very extreme scores in their performance. This further confirms that aspirations were consistent with what one felt about self.

4.3.2 Learners’ backgrounds

The study further explored whether learners’ home backgrounds had any influence on locus of control, self-concept and academic achievement. Learners were required to indicate in the questionnaires their fathers’ level of education and occupation and likewise their mothers’ level of education and occupation. These two variables, that is, level of education and occupation were expected to play some role in influencing the above variables of interest. Furthermore, parental involvement in their children's academic achievement has been documented as being crucial to learners’ academic success (Lema, 1998).
Table 4.14: Analysis of chi-square test on parents’ level of education and occupation and achievement by impairment type.

<table>
<thead>
<tr>
<th></th>
<th>MOTHERS' EDUCATION</th>
<th>MOTHERS' OCCUPATION</th>
<th>FATHERS' EDUCATION</th>
<th>FATHERS' OCCUPATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLIND</td>
<td>$\chi^2 = 2.67$</td>
<td>$\chi^2 = 8.51$</td>
<td>$\chi^2 = 1.53$</td>
<td>$\chi^2 = 6.21$</td>
</tr>
<tr>
<td></td>
<td>Prob. = 0.61</td>
<td>Prob. = 0.48</td>
<td>Prob. = 0.83</td>
<td>Prob. = 0.62</td>
</tr>
<tr>
<td>DEAF</td>
<td>$\chi^2 = 1.85$</td>
<td>$\chi^2 = 10.39$</td>
<td>$\chi^2 = 3.42$</td>
<td>$\chi^2 = 9.05$</td>
</tr>
<tr>
<td></td>
<td>Prob. = 0.76</td>
<td>prob. = 0.17</td>
<td>Prob. = 0.49</td>
<td>Prob. = 0.34</td>
</tr>
<tr>
<td>PH</td>
<td>$\chi^2 = 3.74$</td>
<td>$\chi^2 = 7.39$</td>
<td>$\chi^2 = 5.29$</td>
<td>$\chi^2 = 7.8$</td>
</tr>
<tr>
<td></td>
<td>Prob. = 0.44</td>
<td>Prob. = 0.39</td>
<td>Prob. = 0.26</td>
<td>Prob. = 0.45</td>
</tr>
</tbody>
</table>

Not significant at $p < 0.05$.

From the table above, it can be observed that there was no significant relationship between parents’ backgrounds and academic achievement among learners with special needs. Probably this could be explained first by the fact that these learners spend most of their school time in residential schools where constant parental involvement in school work is minimal and secondly by the assumption that parents of learners with special needs may not expect much in terms of academic achievement of their children.

Similar chi-square tests were done to establish whether the learners’ backgrounds had any significant associations to their locus of control and self-concept. There were no associations noted and thus their results were not worth presenting.
CHAPTER FIVE

SUMMARY OF THE FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

In this chapter, conclusions about the data obtained and analysed are made. These are presented in two sections. In the first section the summary and confirmation or disconfirmation of the stated hypotheses are presented. The second section comprise the implications of the findings and recommendations.

5.1 Summary of the results

The main aim of this study was to investigate the effects of locus of control on self concept of learners with special needs. The scope of the study incorporated three categories of learners with special needs, namely the Visually Impaired, Deaf and Physically Handicapped. The results of this study suggested that generally, learners under study had internal locus of control and positive self-concept. More specifically, the findings were reported according to impairment type. The following is the summary of the findings.

1. A positive relationship between Locus of Control and Self-concept was indicated among visually impaired learners. The null hypothesis
stating that there is no significant relationship between these two variables was thus rejected.

2. Deaf learners did not indicate a direct relationship between locus of control and self-concept. It was however revealed that there was a positive relationship between locus of control and academic achievement.

3. There was no significant relationship between locus of control and self-concept among physically handicapped learners. This finding confirmed the stated null hypothesis $\text{H}_0$ which was then accepted for this category of learners.

4. Cutting across the three categories, it was observed that the physically handicapped learners had the highest mean scores in locus of control and self-concept. This indicated that they had the more positive self-concept and were more internally oriented than the visually impaired learners. Among the three categories, the deaf showed the lowest self-concept and were more externally oriented than the visually impaired and the physically handicapped learners.

5. The highest and the lowest scores in both locus of control and self-concept were found among the physically handicapped learners. This indicated that, there are learners with very high internal locus of
control and at same time some with extreme external locus of control. Likewise, there are learners with high positive self-concept and also negative self-concept.

6. Although there was no statistically significant difference between male and female learners in their locus of control, it was noted that, there were consistently, slightly higher means for females than males. This was consistent with Oliwa (1998) who found that gender was not a factor to account for locus of control.

7. There was a significant difference between physically handicapped female and male learners in their self-concept. This was contrary to the stated null hypothesis (H0) that had suggested no significant difference. The null hypothesis was thus rejected. This negated Mwathi (1998) whose findings indicated no significant difference between male and female disabled learners in their self-concept. Hoffman & Hurst (1990), also assert that the differences often found between males and females arise from rationalization rather than perceptions.

8. The findings of this study indicated that there is a positive relationship between self-concept and academic achievement that can be supported by the following results:

(a). Learners who felt they could do better in their academic
work, had the highest means in self-concept scores. This suggests that the more positive the self-concept, the more the learners longed to achieve higher.

(b). The learners who felt satisfied with their achievement had lower mean scores in both academic achievement and self-concept. This disconfirmed the stated null hypothesis (H03) that had indicated that there is no significant relationship between self-concept and academic achievement. The hypothesis was rejected.

9. The findings also indicated a significant relationship between self-concept and aspirations. This can be supported by the following results.

(a). Learners who wished to continue learning up to university level had the highest academic achievement means as well as highest means in self-concept.

(b). Learners who aspired to be skilled workers after completion of school also had similar results of highest means in both self-concept and academic achievement.

(c). Learners who preferred to stop learning after form four had lower means in self-concept and lowest in academic achievement.

(d). Learners who were content to be unskilled workers after completion of form four had lower means in self-concept and locus of control but lowest in academic
achievement.

(e). Learners who had not thought of what they would like to be after school had the lowest mean scores in both locus of control and self-concept although they had performed better than those who had resigned themselves to be unskilled workers.

5.2. Implications of the findings

5.2.1 Learners' locus of control

From the summary above, the findings indicated that learners with special needs on the overall, had internal locus of control. These findings are consistent with Weinberg-Asher (1976), who found that students with impairments saw themselves in much the same way as their able-bodied counterparts despite the fact that they were expected to be less intelligent, less cheerful, less popular, less aggressive, less happy, lacking in social interaction, more courageous and so forth. These findings however, negate Coleman (1966) who had indicated significant racial and social class difference in the performance on the I-E scale, suggesting that in general, persons in lower social class and members of minority groups hold external locus of control orientation, believing that they have no control over the events and forces in their lives. Learners with special needs are a minority group and would have been expected to show this trend in their performance.
in locus of control measures which was however not the case in regard to the results of this study.

5.2.2 Learners self-concept

This study also, did not find a direct relationship between social factors such as home background and self-concept and locus of control. Learners showed internal orientation and positive self-concept irrespective of their home background. This implied that the learners under study had little influence from their home backgrounds and suggests that they had formulated their experiential world within their environment to boost their ego. This is consistent with Wright’s (1984) assertions that self-concept does not directly correspond with others’ expectations and views. Some impaired persons are able to give differential weight to opinions of others in order to support a more adequate self-concept. They modify their own values, learning to sort out the views of others to form their own.

5.2.3 Learners’ academic achievement

This study observed that, although learners with special needs aspired as much as their able-bodied counterparts, their academic achievement was much lower. The academic achievement was below the cut-off for university entry and this could be a major barrier for higher education. Specifically, deaf learners showed very low academic achievement. It was however noted during the study that these learners had severe communication problems in
terms of limited vocabulary in sign language that made interpretation tedious.

The researcher noted that some concepts were not understood because there were no signs for them in the local Sign Language settings. This was assumed to be a major communication problem that could be a major hindrance to successful learning and consequently also a major block to better academic achievement. The learners needed a wider exposure to a common language of instruction that is nationally accepted, for them to be able to participate adequately educationally and socially. This observation was, however consistent with Meadow (1976) who also found that deaf learners experienced psychological and social adaptation problems due to poor communication skills. He suggested that the poor communication skills contributed to poor academic attainment and poor levels of success, which all could contribute to lowered self-image and negative self-concept.

5.2.4 Implications of the findings to the teachers and parents

The academic achievement of learners with special needs should be viewed with more concern by both teachers and parents so as to enhance higher competition with their able-bodied counterparts to enable them further their education and help them become genuinely productive members of the society. It was noted that, specifically parental involvement was lacking in the education of learners with special needs. Research evidence from many scholars (for instance, Lema, 1998) has emphasized the crucial role that
parents play toward their children's success in academic achievement. It is therefore important that teachers and parents of learners with special needs work in a closer collaboration in planning and implementing of the educational needs of these learners.

5.2.5 Implications of the findings to education planners

Education planners should consider areas of difficulties in curriculum planning and implementation and offer alternative curriculum that caters for limitations imposed by handicaps that are characteristic of learners with special needs. Mere modification of regular curriculum has not been reflected as successful as far as academic achievement is concerned. Researchers such as Muriithi (1995), indicated several difficult areas in terms of implementation of the curriculum needs. Specifically, equipment in teaching science subjects have been cited as either not available or inappropriate for successful handling by learners with special needs.

5.3.0 Recommendations

The following recommendations can be made based on the findings of this study:

1. This study found out that on the overall, learners with special needs had internal locus of control and also positive self-concept. This
indicated that teachers may have consciously or unconsciously done a commendable job in the learners’ environment for them to have achieved the status they are in terms of the two variables of this study. This concurs with Meyen and Skrtic (1995), who asserted that learners with special needs should be provided with opportunities for social maturation, for developing positive and healthy self-concept and for appropriate self-expression. They posited that the classroom can give learners the encouragement they need to explore their own attitudes towards themselves. This assertion should be taken into consideration especially where learners indicate negative self-concept and external locus of control.

Although teachers have done a good job, they could try to structure further or create classroom environments that have warmth, a good sense of belonging, offering various activities that are challenging but success oriented and also activities that ensure that every individual is actively involved. This type of an atmosphere could uplift the learners who are lagging behind in terms of the development of positive self-concept.

2. Learners should be encouraged to exploit all learning opportunities offered to them so as to be able to explore their capabilities and abilities, discovering the challenges ahead of them and setting goals
on how to overcome the challenges rather than resigning themselves to disabilities and fate.

3. Teacher training colleges and universities should equip trainees with some knowledge on how to assess the learners’ self-concept and locus of control orientations so that they can be able to diagnose these aspects and counsel learners appropriately.

4. Teachers and parents should work together in enhancing learners’ sense of responsibility, especially those learners that have external locus of control, inculcating in them appropriate attributions to successes and failures in terms of own effort, hard work, good results versus lack of effort, laziness and poor results in all-around activities in their environment. They should discourage the learners from seeing success in life as being a matter of luck or chance, fate or forces beyond their control rather than seeing them as a result of their own effort and determination.

5. Teachers and parents should create a learning environment that is more supportive and one that caters for their needs, for instance, enhancing more success experiences than failures. or structuring an environment that alleviates disability as much as possible as well as enhancing positive self-concept through the nurturance of learners’
self-acceptance, self-understanding, self-disclosure and feelings of self-worth.

6. Further research into factors that account for either internal or external locus of control is here recommended so that suggestions can be made on the intervention measures that can be employed in learners with special needs’ environment in order to promote internal locus of control orientation. It has been clearly documented that persons with internal locus of control enjoy greater mental health (Phares, 1976). This is of paramount importance to learners with special needs, as it is, for all humanity at large.

7. Further research is also recommended in the area of communication competence among the deaf learners to ascertain whether there is any relationship between their communication competence and their level of academic achievement. During data collection, it was noted that these learners had difficulties in comprehension of tests items basically because they were not familiar with some of the signs that could interpret the content of the tests. Policy makers, Kenya Institute of Education and the board of Kenya Society for the deaf need to research into this issue so as to establish and enforce an agreed and common sign language purposively for instruction beyond localized sign language which could be restrictive to learning.
This study also found distinct differences among the three categories of learners with special needs in terms of locus of control orientations and self-concept, with the physically handicapped learners indicating the widest variance in overall performance on these scales. The group indicated that it had learners who scored the highest scores in both locus of control and self-concept and others scoring the lowest scores, likewise, in both scales across the categories. Further research could be done to investigate the factors that have influenced this group's current status.
References


APPENDIX A

INTERNAL VS. EXTERNAL CONTROL (I-E) SCALE ROTTER (1966).

INSTRUCTIONS.

Please give your answers as honestly as possible. This information will be treated confidentially. This is not an examination and there is no right or wrong answer. The responses you give will only describe your personal feelings. So, tick (✓) one out of the two statements in each set that best describes what you think about the topic.

1. a. Children get into trouble because their parents punish them too much.
   b. The trouble with most children is that their parents are too easy with them.

2. a. Many of the unhappy things in people’s lives are partly due to bad luck.
   b. People’s misfortunes result from the mistakes they make.

3. a. One of the major reasons why we have wars is because people don’t take interest in politics.
   b. There will always be wars, no matter how hard people try to prevent them.
4. a. In the long run people get the respect they deserve in this world.
   
   b. Unfortunately, an individual’s worth often passes unrecognised no matter how hard he tries.

5. a. The idea that teachers are unfair to students is nonsense.
   
   b. Most students don’t realize the extent to which the grades are influenced by accidental happenings.

6. a. Without the right brakes one cannot be an effective leader.
   
   b. Capable people who fail to become leaders have not taken advantage of their opportunities.

7. a. No matter how hard you try some people just don’t like you.
   
   b. People who can’t get others to like them don’t understand how to get along with others.

8. a. Heredity plays the major role in determining one’s personality.
   
   b. It is one’s experiences in life which determine what they are like.

9. a. I have often found that what is going to happen will happen.
   
   b. Trusting to fate has never turned out as well as for me making a decision to take a definite course of action.
10. a. In the case of the well-prepared student, there is rarely if ever such a thing as an unfair test.

b. Many times exam questions tend to be so unrelated to course work that studying is really useless.

11. a. Becoming a success is a matter of hard work, luck has little or nothing to do with it.

b. Getting a good job depends mainly on being in the right place at the right time.

12. a. The average citizen can have influence in government decisions.

b. This world is run by the few people in power, and there is not much the little guy can do about it.

13. a. When I make plans, I am almost certain that I can make them work.

b. It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.

14. a. There are certain people who are just no good.

b. There is some good in everybody.

15. a. In my case getting what I want has little or nothing to do with luck.

b. Many times we might just as well decide what to do by flipping the coin.
16.  a. Who gets to be the boss often depends on who was lucky enough to 
    be in the right place first.
    b. Getting people to do the right thing depends upon ability, luck has 
    little or nothing to do with it.

17.  a. As far as world affairs are concerned, most of us are victims of 
    forces we can neither understand, nor control.
    b. By taking an active part in political and social affairs the people 
    can control world events.

18.  a. Most people don’t realize to which extent their lives are 
    controlled by accidental happenings.
    b. There really is no such thing as “luck”.

19.  a. One should always be willing to admit mistakes.
    b. It is usually best to cover up one’s mistakes.

20.  a. It is hard to know whether or not a person really likes you.
    b. How many friends you have depends on how nice person you are.

21.  a. In the long run the bad things that happen to us are balanced by the 
    good.
    b. Most misfortunes are the result of lack of ability, ignorance, 
    laziness, or all three.

22.  a. With enough effort we can wipe out political corruption.
    b. It is difficult for people to have much control over things politicians 
    do in office.
23. a. Sometimes I can't understand how teachers arrive at the grades they give.
   b. There is a direct connection between how hard I study and the grades I get.

24. a. A good leader expects people to decide for themselves what they should do.
   b. A good leader makes it clear to everybody what they should do.

25. a. Many times I feel that I have little influence over the things that happen to me.
   b. It is impossible for me to believe that chance or luck play an important role in my life.

26. a. People are lonely because they don't try to be friendly.
   b. There's not much use in trying too hard to please people, if they like you, they like you.

27. a. There is too much emphasis on athletics in high school.
   b. Team sports are excellent ways to build character.

28. a. What happens to me is my own doing.
   b. Sometimes I feel that I don't have enough control over the direction my life is taking.

29. a. Most of the time I can't understand why politicians behave the way they do.
   b. In the long run people are responsible nationally as well as on a local level.
APPENDIX B


INSTRUCTIONS

Answer this section as honestly as possible. You are informed that there is no right or wrong answer. Whatever you answer is correct because it will be taken that you are telling the truth about your feelings towards yourself. You are also reminded that the answers you give will not be shown to anyone else. They will be treated confidentially.

THE ILLUSTRATION ITEM.

Below are two adjectives, which have been used by students to describe how they judge their feelings toward themselves.

Tall Short

Imagine that you are required to judge your feelings towards yourself. Examine carefully the two adjectives and place yourself on the line separating the two adjectives. Once you have decided on the exact point you want to place yourself, mark with a star that point and write the word “myself” above it as illustrated below.

Tall (myself) Short

The mark can be placed on the top of the first line to indicate you regard yourself tall, or the second line meaning not quite tall. A mark at the mid-
point indicates that you are neither tall nor short. A mark on the fourth line, indicates that you are not really short while a mark on the last line is expressing that you feel that you are short. Follow the same format to examine how you would judge yourself in relation to the following items.

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</thead>
<tbody>
<tr>
<td>1. Beautiful</td>
<td>Ugly</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>2. Unhealthy</td>
<td>Healthy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Strong</td>
<td>Weak</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Kind</td>
<td>Unkind</td>
<td></td>
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<td></td>
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<tr>
<td>5. Dishonest</td>
<td>Honest</td>
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<td></td>
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<tr>
<td>6. Disobedient</td>
<td>Obedient</td>
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</table>
7. Fearless  Fearful

8. Sympathetic  Unsympathetic

9. Sorrowful  Joyful

10. Clever  Stupid

11. Lazy at school  Hardworking at school

12. Good memory  Poor memory

13. Friendly  Unfriendly
14. **Co-operative**
   
   |  |  |  |  |  |  |

15. **Popular**
   
   |  |  |  |  |  |  |

16. **Helpful at home**
   
   |  |  |  |  |  |  |

17. **Loved at home**
   
   |  |  |  |  |  |  |

18. **Not lonely at home**
   
   |  |  |  |  |  |  |

**THANK YOU FOR YOUR CO-OPERATION.**

7. How far do you hope to go with your education?
   
   A. Stop at Form 2
   
   B. Proceed up to Form 4
   
   C. Proceed to diploma in the future
   
   D. Read for a degree in the future

Give your reasons for your choice at page 89.
APPENDIX C

A QUESTIONNAIRE TO STUDENTS.

INSTRUCTIONS.

Answer the following questions as honestly as possible. You are reminded that your responses will be treated with utmost confidentiality. Use a (✓) tick to indicate your answer.

1. NAME
2. SCHOOL
3. GENDER MALE ☐ FEMALE ☐
4. AGE
5. CLASS

6. How do you feel about your academic performance?
   A. I am satisfied ☐   B. I think I should do better. ☐

7. How far do you hope to go on with your education?
   A. Stop at form 2 ☐
   B. Proceed up to form 4 ☐
   C. Proceed to diploma level ☐
   D. Enrol for a degree in a university ☐

Give your reasons for your choice in question 7.
8. Do the grades you get in school make you feel like they will help you be what you would like to be after schooling?

A. Yes □ B. No □

9. What would you like to be after the completion of your formal education?

A. A skilled worker □
B. An unskilled worker □
C. I have not thought about it yet □
D. I do not know □

10. What is the highest level of your father’s education?

A. Has finished primary education □
B. Has finished secondary education □
C. Has a college certificate of education □
D. He is a university graduate □
E. He is not educated. □

11. What is the highest level of your mother’s education?

A. Has finished primary education □
B. Has finished secondary education □
C. Has a college certificate of education □
D. She is a university graduate □
E. She is not educated □

12. What does your father do to earn money?
13. What does your mother do to earn money?

14. Generally when do you feel happy and free and completely in good control of your life?

A. When at school and doing well in my schoolwork
B. While at home and least bothered with schoolwork
C. While on vacation and resting after the tedious schoolwork
D. After successful completion of the set goals in my schoolwork

THANK YOU FOR YOUR CO-OPERATION.