RELATIONSHIP BETWEEN HUMAN IMMUNODEFICIENCY VIRUS STATUS AND SELF-CONCEPT, ACADEMIC PERFORMANCE, BEHAVIOURAL ATTITUDES AMONG PUPILS IN SELECTED PRIMARY SCHOOLS, NAIROBI-WEST, KENYA

NDIVO SUSAN MUMBUA
E55/10426/2007

A THESIS SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE DEGREE OF MASTER OF EDUCATION IN THE SCHOOL OF EDUCATION OF KENYATTA UNIVERSITY

MAY 2011
DECLARATION
This thesis is my original work and has not been presented for a degree in any other university.

Ndivo Susan Mumbua
E55/10426/2007
Signature……………….. Date…………………..

Supervisors
We confirm that the work reported in this thesis was carried out by the candidate under our supervision as university supervisors.

Prof. Edward Oyugi
Department of Educational psychology
Signature…………………… Date…………………..

Prof. Haniel Gatumu
Department of Educational Psychology
Signature…………………… Date…………………..
DEDICATION

This thesis is dedicated to my parents for introducing me to school and their encouragement to further my education, also to my loving husband for the support and motivation he offered during this course.
ACKNOWLEDGEMENT

It is with joy I sincerely thank my supervisors; Prof. E. Oyugi and Dr. H. Gatumu for their assistance in supervision of this work. God bless you.

I am thankful to the entire educational psychology department. I would like to acknowledge particularly the Chairperson the Department of Educational Psychology; Dr Philomena Ndambuki, my dear Lecturers; Dr S. Tumuti, Dr Wang’eri, and Dr Kinai for their scholarly advice and the wealth of knowledge that I depended on to write this research paper. Special thanks to Mr. Samuel Mutua M. who was very supportive and offered technical assistance when I needed it.

I specially thank my husband Mr. John Njagi for his immeasurable support and sacrifice towards making my work better and to my children, Victor, Nicky and Joy Esther. Thank you for being supportive and patient even when your time was spend in finishing this work.

Finally, above all I am grateful to Eternal God for enabling me to come this far and making everything beautiful at his time. All the praise goes to God the Father, the Son and the Holy Spirit, Amen.
TABLE OF CONTENTS

TITLE PAGE ............................................................................................................. i
DECLARATION .......................................................................................................... ii
DEDICATION .......................................................................................................... iii
ACKNOWLEDGEMENT .......................................................................................... iv
TABLE OF CONTENTS ............................................................................................ v
LIST OF TABLES ..................................................................................................... vii
LIST OF FIGURES ................................................................................................... viii
ABBREVIATIONS AND ACRONYMS ....................................................................... ix
ABSTRACT ............................................................................................................... x
CHAPTER ONE ....................................................................................................... 1
INTRODUCTION ...................................................................................................... 1
1.1 Background to the study .................................................................................. 1
1.2 Statement of the Problem ............................................................................... 5
1.3 Purpose of the Study ...................................................................................... 7
1.4 Objectives of the Study .................................................................................. 7
1.5 Research Hypotheses ..................................................................................... 7
1.6 Significance of the Study ................................................................................ 8
1.7 Delimitations and Limitations of the Study .................................................. 9
1.8 Assumptions ................................................................................................... 10
1.9 Theoretical Framework ................................................................................. 10
1.9.1 Multidimensional, context-dependent model of self-concept ............... 10
1.9.2 Roy Adaptation Model (Roy, 1976) ....................................................... 12
1.9.3 Summary of Theoretical Framework ..................................................... 13
1.9.4 Conceptual Framework .......................................................................... 14
1.10 Operational Definition of terms ................................................................... 16
CHAPTER TWO ..................................................................................................... 18
LITERATURE REVIEW ............................................................................................ 18
2.0 Introduction ..................................................................................................... 18
2.1 Chronic illnesses and Self-concept ................................................................ 18
2.2 HIV/AIDS Infection and Behavior ............................................................... 20
2.3 HIV/AIDS and Academic Performance ....................................................... 22
2.4 Self-concept and Behavior ........................................................................... 25
2.5 Self-concept and Academic Performance .................................................... 27
2.6 Summary of the literature review .................................................................. 30
CHAPTER THREE .................................................................................................. 33
RESEARCH DESIGN AND METHODOLOGY ...................................................... 33
3.0 Introduction ..................................................................................................... 33
3.1 Research design ............................................................................................ 33
3.2 Research Variables ....................................................................................... 34
3.3 Location of the Study .................................................................................... 34
3.4 Description of the Population ....................................................................... 36
3.5 Sampling Technique and Sample Size ......................................................... 37
3.5.1 Sampling technique ................................................................................ 37
3.5.2 Sampling Frame ....................................................................................... 39
3.6 Description of the Instruments ..................................................................... 41
## APPENDIX VII

### Summary, Conclusions and Recommendations

### Chapter Four

- **Data Analysis, Results and Discussion**
  - **4.0** Introduction
  - **4.1** Descriptive Statistical Analysis
  - **4.1.1** Students Age
  - **4.1.2** Student’s Self-concept
  - **4.1.3** Behavioral Attitudes
  - **4.1.4** Academic Performance
  - **4.2** Hypotheses Testing
  - **4.2.1** The relationship between HIV Status and the Self-concept
  - **4.2.2** The relationship between HIV Status and Behavioral attitudes
  - **4.2.3** The relationship between HIV Status and Academic Performance
  - **4.2.4** The Differences in the Self-concept, Behavior and A. Performance
  - **4.2.5** Sex Differences in Self-concept and Behavioral Attitudes
  - **4.2.6** Exploratory Analysis

### Chapter Five

- **Summary, Conclusions and Recommendations**
  - **5.0** Introduction
  - **5.1** Summary of the Findings
  - **5.2** Implications of the Findings
    - **5.2.1** Implication of the Findings to the Parents, Guardians and Caretakers
    - **5.2.2** Implication of the Findings to the Teachers and School Administrators
    - **5.2.3** Implication of the Findings to the Educational Policy Makers
  - **5.3** Conclusions
  - **5.4** Recommendations
  - **5.5** Suggestions for Further Research

### References

### Appendices

- **Appendix I**
- **Appendix II**
- **Appendix III**
- **Appendix IV**
- **Appendix V**
- **Appendix VI**
- **Appendix VII**
LIST OF TABLES
Table 3. 1 Sampling Frame A: Children Living in Children Homes.................. 40
Table 3. 2 Sampling Frame B: Children living with Families or Relatives...... 41
Table 3. 3 Six areas used in the Modified Semantic Differential Scale .......... 42
Table 4. 1 Distribution of Student’s Age in terms of HIV Status................. 52
Table 4. 2 Distribution of Student’s Age based on Sex ................................ 53
Table 4. 3 Analysis of Student’s Self-concept.......................................................... 53
Table 4. 4 Analysis of Self-concept based on Sex................................................. 54
Table 4. 5 Analysis of Self-concept in terms of Age........................................... 54
Table 4. 6 Analysis of Self-concept in terms of Area of Residence............... 55
Table 4. 7 Analysis of Self-concept in terms of HIV Status............................. 55
Table 4. 8 Analysis of Behavioral Attitudes............................................................ 56
Table 4. 9 Analysis of Behavioral Attitudes and HIV Status......................... 57
Table 4. 10 Analysis of Behavioral Attitudes and Area of Residence.............. 57
Table 4. 11 Analysis of Behavioral Attitudes and Sex ........................................... 58
Table 4. 12 Analysis of Behavioral Attitudes and Self-concept...................... 58
Table 4. 13 Analysis of the Academic Performance............................................. 59
Table 4. 14 Analysis of Academic Performance and HIV Status...................... 59
Table 4. 15 Analysis of Academic Performance and Area of Residence .......... 60
Table 4. 16 Analysis of Academic Performance and Self-concept.................... 61
Table 4. 17 Analysis of Academic Performance and Self-concept.................... 62
Table 4. 18 Analysis of the Academic Performance and Behavior................... 62
Table 4. 19 Analysis of the Academic Performance and Behavior................... 63
Table 4. 20 Chi-Square test on HIV Status and Self-concept......................... 64
Table 4. 21 Chi-Square test for HIV Status and Behavioral Attitudes.............. 65
Table 4. 22 Chi-Square test for HIV Status and Academic Performance......... 66
Table 4. 23 t.test for Independent Samples on Differences in Self-concept........ 67
Table 4. 24 t.test for Independent Samples on Differences in Behavior........... 68
Table 4. 25 t.test for Independent Samples on Differences in A.Performance.... 68
Table 4. 26 t.test for Independent Samples on Differences in Self-concept...... 69
Table 4. 27 t.test for Independent Samples on Differences in Behavior........... 70
Table 4. 28 Correlations on Self-concept, Behavior and A.Performance........ 71
Table 4. 29 Correlations on Academic Performance and A. Self-concept........ 72
Table 4. 30 Correlations between A. Performance and Classroom Behavior .. 73
LIST OF FIGURES

Figure 1.1 Conceptual Framework ........................................................................... 15
Figure 4.1 Histogram on Distribution of Age ........................................................ 52
### ABBREVIATIONS AND ACRONYMS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIDS</td>
<td>Acquired Immunodeficiency Syndrome.</td>
</tr>
<tr>
<td>CCI</td>
<td>Charitable Children’s Institutions.</td>
</tr>
<tr>
<td>HACM</td>
<td>HIV Associated Cognitive Motor Complex.</td>
</tr>
<tr>
<td>HIV</td>
<td>Human Immunodeficiency Virus.</td>
</tr>
<tr>
<td>NACC</td>
<td>National Aids Control Council.</td>
</tr>
<tr>
<td>PCP</td>
<td>Pneumocystis Carinii Pneumonia.</td>
</tr>
<tr>
<td>UNAIDS</td>
<td>United Nations Programme on HIV/AIDS</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization.</td>
</tr>
</tbody>
</table>
ABSTRACT

In this study the researcher studied the relationship between the HIV Status and pupils’ self-concept, behavioral attitudes and progress in academic performance. The main aim was to investigate how the self-concept, behavioral attitudes and academic performance may interact with each other in the face of HIV/AIDS scourge and the likely outcomes. The researcher has also studied the inherent sex differences in both the behavioral attitudes and self-concept as an antecedent variable. The study consisted of 308 pupils, selected from class 4, 5, 6, 7 and class 8 in nine primary schools in Nairobi West District. The nine schools were sampled from 132 schools. The study included 154 HIV infected children from various children’s homes and normal family set-ups who were enrolled as pupils in these schools. The study used an ex post facto research design. The purposeful sampling and systematic random sampling procedures were used. In the study, a modified semantic differential scale was used to measure the pupils’ self-concept. The academic performance was measured by use of past Examination records which were obtained from school records an academic form, while the behavioral attitudes were measured using Conner’s Teacher Rating scale. For data analysis, the researcher used both descriptive and inferential statistics. Hypotheses were tested at $\alpha=0.05$ level of significance. For the relationship between the variables, the researcher used Chi-square statistic, Pearson’s product moment correlations for correlation within the dependent variables and t-test for independent samples to test the difference between means was used. SPSS (Statistical Package for Social Sciences) computer programme was used to help in the analysis. The study was guided by three main hypotheses which stated that; There was a relationship between HIV status and pupils’ self-concept; There was a relationship between the HIV status and pupils’ behavior; there was a relationship between the HIV status and the pupils’ academic performance. The results provided evidence that; (i) There was significant relationship between HIV status and the pupils’ self-concept. However there was strong and significant correlation between self-concept and both the behavioral attitudes and academic performance. (ii) There was a strong and significant relationship between the HIV status and the pupils’ behavioral attitudes. (iii) The academic performance of the HIV infected pupils was lower compared to the uninfected peers. Based on these findings the researcher recommended that there is need to strengthen both the psychological and behavioral interventions in the formal learning of the HIV infected pupils in both public and private primary schools.
CHAPTER ONE

INTRODUCTION

1.1 Background to the study

HIV stands for Human immunodeficiency virus which causes a condition known as Acquired Immunodeficiency Syndrome (AIDS). AIDS is a condition whereby the human body loses its immunity hence it cannot resist diseases. When the HIV virus has multiplied in large numbers in the body of the victim, the body’s immunity goes down allowing opportunistic diseases to attack. This condition is commonly referred to as the HIV/AIDS. It is a major public health problem in children as well as in adults.

The first report of acquired immunodeficiency syndrome (AIDS) appeared in the early 1980’s (Morbidity and Mortality Weekly Report (MMWR), 1981). The report described five men who were homosexuals. They were diagnosed with Pneumocystis Carinii Pneumonia (PCP) which was later to be a characteristic infection associated with HIV-positive patients. In 1984 researchers reported the discovery of a retrovirus, now known as HIV type 1 (HIV-1) associated with Aids. Two years later, another second strain of a retrovirus referred to as HIV-2 was discovered. The HIV-2 shares 42% of genetic homology with HIV-1 but is less virulent (Citron, Brouillette & Beckett, 2005). The two strains of the virus have made it difficult to control.

In Kenya, the first officially reported case of HIV/AIDS was in 1984 (Ministry of Health Report, 2001). Following the high rate of infection, the government
declared HIV/AIDS a national disaster in 2002. Since then HIV/AIDS pandemic has remained a major challenge in Kenya. By the end of the year 2007, the Joint United Nations Programme on HIV/Aids reported that there were 2.5 million children below the age of 15 years living with HIV/AIDS in the world (Waweru, Reynolds & Buckner, 2008). A report presented through joint effort by United Nations Programme on HIV/AIDS (UNAIDS) and World Health Organization (WHO) in July 2008 estimated the number of both the adults and children living with HIV in Kenya to be 1.9 million. The number of children aged 0-14 years living with HIV was estimated to be 170,000. Out of the total infected cases 1.1 million were women. The report pointed out that 50% of these women had no access to family planning services. This is an indicator that these women continued to give birth to HIV-infected children.

Worldwide, heterosexual acquisition is the main route of infection for men and women while Mother-to-Child transmission also known as vertical transmission is the main mode of acquisition of infection for children (Citron et al, 2005). Since the very first HIV/AIDS case in Kenya, it’s now more than two decades. The first generation of children born of HIV-infected parents is now past adolescent stage of development. Research has shown that more children with the HIV virus are living past 10-15yrs of age even without medical treatment and as a result many children may remain asymptomatic for as long as a decade and more (Lourie, Pao, Brown & Hunter, 2005). However, research has shown that children of this age
may get HIV infection through incidences like rape, use of injectable illegal drugs or early sexual experiences (Owende, Gichuru & Bukusi, 2009; Nyabicha, 2009)

The recent developments in antiretroviral therapy have helped decrease the incidence of vertical transmission and have also reduced the treatment burden on those infected more than doubling their life expectancy. The availability of the anti retroviral therapy has dealt with the physical pain, enabling the children to go to school, play with the uninfected peers and generally lead a normal life. The antiretroviral therapy is treatment of HIV/AIDS using the antiretroviral drugs. The drugs slow down the action of the virus as well as boosting the body’s immunity system. There are no curative drugs discovered as yet. Pediatric Aids continues to gradually shift from being an acute terminal childhood disease to chronic long-term disease and therefore pediatric Aids will continue to be of great significance to pediatricians, child psychiatrists, psychologists, educationists and allied professionals (Brown, Lourie & Pao, 2000).

WHO (2005) Considers HIV/AIDS to be a chronic illness that can be controlled by strict adherence to medication regimen. This means HIV/AIDS has become a health problem of long duration and generally slow progression, often requiring management for years or decades. In the last one decade there has been emphasis on meeting socio-economic needs of the HIV-infected and affected children (Onyango, 2005). Most of these children have been adopted into institutions where they are cared for by social workers and foster parents through Non-governmental organizations and churches, an arrangement supervised by the

In many cases these HIV infected children learn in the same schools with the uninfected peers. In the past, parents have raised concern where the HIV infected children learn in school together with the un-infected peers. In some cases legal action has been taken to intervene in getting these innocent children to access their right to education. Therefore, the majority relatives of the infected child do not disclose their child’s status in order to protect him or her from the stigma. The infected children may feel unaccepted by their peers and the society for who they are. For fear of HIV/AIDS stigma and discrimination, the child’s’ HIV status especially in public schools remains a secret or in few cases only the Head teacher is informed. This situation leaves the other teachers ignorant of the child’s status and most of the time they may not be able to tackle the children’s academic, mental, emotional and behavioral difficulties. It was therefore imperative that this study was carried out to find out the relationship between HIV status and self-concept, behavior and the academic performance.

Some behavioral attitudes noted among both the adults and children living with HIV/AIDS are psychological stress, repression of anger, external locus of control and low social support (Grassi, Righi, & Sighinolfi, 1998). The fact that the child is aware that he or she suffers from a terminal illness, affects how they see themselves. It is at the pre-adolescent and adolescent stage that the HIV infected
children understand why they must be on medication on daily basis and visit the clinic regularly. Most of the children have to deal with physical illness and regular hospitalization. This has an intense impact on the learners’ self-image and therefore this is potential challenge to influence his or her future emotional, psychological and social functioning (Louw, Edward & Orr, 2001). Lessening physical and the psychological impact of the disease on the pupils enable them to exploit their academic potential.

One of the common characteristics among the HIV infected children is orphanhood. This is because they are born by HIV infected parents and more often their parents die and leave them as orphans. This doubles their life challenges. Growing up without parental care and love may contribute to social, emotional and psychological complications in the course of development (Ochieng, 2004). This study has dealt with both the psychological and behavioral dysfunctions among these children and how they relate to their academic performance.

1.2 Statement of the Problem
The high number of HIV/AIDS infections among the children transmitted due to vertical transmission is a matter of concern. The health of the HIV infected children is already challenged and vulnerable due to the HIV seropositive status. WHO defines health as the state of being physically, mentally and socially fit, not necessarily the absence of diseases or infirmity. Therefore, there is need to emphasize all the three components of health. Several studies have been done on
HIV/AIDS awareness and education in both urban and rural communities in Kenya (National Aids Control Council Report, 2005). HIV/AIDS among children has been studied widely on areas of its awareness and education on HIV prevention (Oyoo, 2003), Socio-economic needs of HIV/AIDS orphans (Onyango, 2005), HIV/AIDS and role of nutrition (Mbogoh, 2003) and impact of HIV/AIDS on education of primary school orphaned girls (Ochieng, 2004). In all these studies the emphasis has been on the HIV/AIDS orphans and their various basic needs. However, a study done by Waweru et al (2008) gave a research report on the self-concept of the HIV/Aids infected children but it did not include behavior and academic performance.

If Kenya is going to realize one of her goals in the KNASP 2009/2010-2012/2013 (Babcock, 2009) in the fight against HIV/AIDS, that is giving complete care to the HIV infected children and quality life, then also the educational needs of these children are of great importance. Since HIV/AIDS has been proved to be a chronic disease there is dire need to ensure they not only receive quality education but they also have open opportunities to exploit their academic potential despite their HIV status. To ensure that the expected academic excellence is achieved, their mental and social health can not be ignored which involves their psychological and behavioral well being. Therefore, it was clearly necessary to study the relationship between HIV status and the pupils’ self-concept, behavioral attitudes and academic performance.
1.3 **Purpose of the Study**
The primary concern of this study was to investigate the relationship between the HIV status and self-concept among the HIV positive pupils and the likely impact on their academic performance. The study also investigated the emerging behavioral attitudes as a result of the infection. In addition it investigated the gender differences in self-concept and behavior.

1.4 **Objectives of the Study**
The study endeavored,

i) To investigate the relationship between HIV status and self-concept.

ii) To investigate the relationship between HIV status and behavioral attitudes.

iii) To investigate the relationship between HIV status and academic performance.

iv) To investigate the differences in self-concept, behavioral attitudes and academic performance due to HIV status on both the HIV positive and HIV negative.

v) To investigate gender differences in self-concept and behavioral attitudes among the pupils under study.

1.5 **Research Hypotheses**

**Ha$_1$** There was a relationship between the HIV status and self-concept of the pupils.

**Ha$_2$** There was a relationship between the HIV status and behavioral attitudes of the pupils.

**Ha$_3$** There was a relationship between the HIV status and academic performance of the pupils.
There were differences in self-concept, behavioral attitudes and academic performance due to the HIV status on both the HIV positive and HIV negative.

There were gender differences in self-concept and behavioral attitudes among the pupils under study.

1.6 Significance of the Study
The study has investigated the relationship between HIV/AIDS and the sero-positive pupils’ self-concept and their behavioral attitudes and how this consequently relates to their academic performance. These findings will be useful in the following ways.

i) Social workers and caregivers who care for the HIV/AIDS infected pupils. That is, how these pupils view themselves, affects their behavior and their academic performance. They will also become aware that they can contribute in ensuring that the HIV infected children live satisfying and quality lives by improving their emotional, social and psychological health along with the physical health.

ii) School administrators benefit by gaining awareness that these children can perform well in school if given extra support and are given their right to education. The study will help them play their role in tackling the pupils’ academic difficulties when they realize and deal with the pupils’ psychological difficulties.
iii) School teachers benefit by gaining awareness that they have a role to play in enhancing personality formation of these pupils and in giving emotional support hence recognizing their educational special needs.

iv) The Ministry of Education would use the study results to follow up on effectiveness of implementations of the national policy on orphans and vulnerable children.

1.7 Delimitations and Limitations of the Study

i. Larger numbers of the HIV positive pupils could not be obtained due to social stigma on HIV/AIDS victims. The researcher carried out the study in collaboration with children homes and schools in urban informal settlements which limited the researcher to only such set ups. This is because of the fact that in the children homes, the home managers have socialized the children and disclosed to them their HIV status. In the schools there were respondents living with their families or relatives who had disclosed their HIV status to the head teacher and at least the class teacher or the school welfare teacher.

ii. The study was delimited to Nairobi. This was because the researcher dealt mainly with children’s homes which have school going children and are HIV positive. These schools were mainly concentrated in Nairobi compared to rural towns or in small urban centres. Nairobi had 142 children’s homes (CCI Report, 2008).
1.8 Assumptions
In this study it was assumed that:

i. The schools’ learning environment in which the learners being studied attended was relatively the same given that the schools fell in different categories.

ii. The research assistants’ characteristics had no significant influence on the pupils’ response in terms of approach as they filled the questionnaires since different research assistants participated for the different schools.

iii. The pupils under study were aware of the implications of their HIV status because only then, the impact of the infection would be accurately measured.

iv. The subjects under study were not experiencing AIDS condition during the data collection period. The Aids condition could cause physical pain and interfere with the true feelings of the respondents.

1.9 Theoretical Framework
The research was based on two models.

i. The self-concept theoretical model by Bracken known as the Multidimensional Context-Dependent Self-concept Model

ii. The Roy Adaptation Model

1.9.1 Multidimensional, context-dependent model of self-concept (Bracken, 1992).
The multidimensional self-concept model is a theoretical model that emphasizes the importance of children’s and adolescent’s differential adjustment in various contexts in which they operate. This approach also emphasizes on an assessment
approach that evaluates children’s and adolescent’s adjustment within the multiple primary contexts in which they find themselves operating on daily basis. The model was developed by Bracken (1992) in his attempt to find a self-concept model that would be useful for both research and clinical practice. The model further states that children develop as many self-concepts as the unique environmental contexts in which they find themselves operating either as passive or active agents. Bracken postulated that though the number and range of specific contexts available to children are vast, the typical child spends most of his or her time within the following six primary environmental contexts: social, competence, affect, academic, family and physical.

These six primary context-dependent domains are not mutually exclusive. In a school set up all the six domains of self-concept can be conveniently experienced and assessed. The domains overlap considerably and create more specific or secondary contexts for consideration. For example, children experience social success and failure in primary social settings like dances and playgrounds, as well as in secondary social settings like family or classroom interactions (Bracken, 1992, 1996). These primary environmental contexts influence the self perceptions of the children and therefore they are regarded as self-concepts based on each context.
1.9.2 Roy Adaptation Model (Roy, 1976).

This model commonly referred to as RAM was developed by Roy in 1976 for use in nursing set ups, where it has been widely used. The model has been used to study the effect of HIV infection on self-concept among the HIV infected children in both Kenya and United States of America (Waweru, Reynolds & Buckner, 2008). RAM sees an individual as a set of interrelated systems; biological, psychological and social usually known as the systems model. The individual is influenced by both his/her internal and external environment. When faced with stimuli the person must adapt and therefore in health terms, failure to adapt positively results in ill health. The individual maintains a balance between each of these systems and the outside world. However, there is no absolute level of balance according to Roy. All human beings strive to live within a band where they can cope adequately. This band is unique to an individual. The adaptation level in particular is the range of adaptability within which the individual can deal effectively with ‘now’ experiences.

The person’s adaptation is a result of the stimuli he or she is exposed to and his or her own adaptation level. The person’s adaptation level is such that it comprises a ‘zone’ or a band indicating the range of stimulation that will lead to positive response. The person is perceived as having four modes of adaptation, namely; Physiological needs, Self-concept, Role function and Interdependence. The model’s goal is “promotion of adaptation in each of the four modes, thereby contributing to the person’s health, quality of life and dying with dignity” (Andrews & Roy, 1991).
1.9.3 Summary of Theoretical Framework

The explanation on the two theories clearly brings out that self is a product of interaction from infancy onward, with individual’s physical and social environment. This interaction is associated with things like pain, resistance, acceptance, rejection and gratification (Sills, 1968).

According to Bracken, in his multidimensional self-concept model the children adjust differently to different environmental contexts. Therefore, the environment which includes the people around the individual is of essence. The interactions with the environment will influence the self-perceptions of the pupils. It implies that the HIV infected pupils will perceive themselves according to how they perceive others behaving towards them. This is magnified by the social stigma towards HIV/AID which is currently rated high (Keraka, 2009).

The HIV infected pupils’ self-concept will ultimately depend on the teachers, caregivers, peers and significant others’ treatment. If these ‘important people’ seem to perceive that they have high expectations of the pupils’ academic performance, then the pupils will develop high expectations on their academic performance. Human beings are motivated to maintain an image of themselves that is positive (Nash, 1976). Therefore self-concept plays a major role in how these pupils approach tasks with confidence and high expectation for success. This in turn will influence their behavior both at school and at home.

Drawing from Roy’s adaptation model, the HIV infected pupils require extra emotional and social support in order to be able to adapt to the challenge of
HIV/AIDS and still lead relatively normal lives like the other children. These children are faced with a stimulus (HIV/AIDS disease) they must adapt to in response, in order to maintain equilibrium. Failure to adapt shall lead to mal-adaptation which in turn could result to physical ill health, negative self-concept, antisocial behavior, state of helplessness, dependence and more critical, even loosing the will to live. The model explains the possibility of low self-concept; poor academic performance and maladaptive behaviors in the event that the HIV infected pupils are not sufficiently supported psychologically, emotionally and socially to adapt. However Roy argues that if adaptation is positive, that is, a positive self-concept is encouraged, it is easier to assist the individual in maximizing and maintaining strategies for coping like positive social interactions, psychosocial integrity, contributing and receiving from the environment.

1.9.4 Conceptual Framework
This is presented in Figure 1.1 which illustrates the interaction between the study variables. HIV status was the independent variable while the self-concept, academic performance and behavioral attitudes were the dependent variables. In the cases where a relationship was perceived to be strongest, a double headed arrow was used. Where a relationship was perceived to be less strong a single headed arrow was used.

The academic performance was classified as high, average or low performance for the respondents.
Conceptual Framework

Relationship between Key Variables

Figure 1.1

Source: Researcher (2011)
1.10 **Operational Definition of terms**

**Academic Performance:** Also referred to as academic achievement, was defined as the mean mark that a pupil scored at the end of term examinations. A pupil could have attained high academic performance, average academic performance or low academic performance.

**Asymptomatic:** This was used to mean a status of being with a disease or infection but showing no symptoms.

**Behavioral attitudes:** These were measurable ways in which the HIV infected pupils expressed their feelings, values, perceptions, beliefs, satisfaction or dissatisfaction in their own lives and in the school environment.

**HIV-1:** Human Immunodeficiency Virus 1; the first retrovirus strain to be discovered and is commonly transmitted and more virulent.

**HIV-2:** Human Immunodeficiency Virus 2; the second retrovirus strain to be discovered and is less virulent.

**HIV/AIDS:** This was used to refer to a condition experienced by a pupil when the HIV virus has multiplied in large numbers in the body of the victim such that the body immunity goes down, allowing opportunistic diseases to attack.

**HIV-infected pupils:** These were children who had 9 to 17yrs of age and were HIV+.

**HIV Status:** This was the pupils’ health condition of being either HIV positive or HIV negative.

**HIV stigma:** This was used to mean the prejudice and the discrimination directed at the pupils living with HIV/AIDS and the groups or the community they are associated with.
Negative self-concept: This was indicated by a score of 53 and below on the modified semantic differential scale.

Positive self-concept: This was indicated by a score of 54 and above on the modified semantic differential scale.

Self-concept: This was a value obtained by adding scores of all the self-concept domains in a modified semantic differential scale filled by the pupils as questionnaire. It was also used to describe how the HIV infected pupils viewed themselves, the way they perceived and evaluated themselves, their thoughts, opinions and attitudes of themselves. This was reflected either as positive self-concept or negative self-concept.

Sero-positive: This was used to refer to having the HIV antibodies present in the pupils’ blood.

Sex: This is being either a male or female. In this case the respondent (subject) was either a boy or a girl.
CHAPTER TWO
LITERATURE REVIEW

2.0 Introduction
This chapter contains reviewed literature on HIV/AIDS and its relationship with self-concept, academic performance and behavioral attitudes among the pupils. Studies on the relationship between the three variables were also reviewed. This included both foreign and Kenyan authored literature on the mentioned areas. A summary of the review is given at the end of the chapter.

2.1 Chronic illnesses and Self-concept
Quite a number of studies have been done on the area of chronic illnesses and self-concept but little has been done specifically on HIV/AIDS and self-concept. According to Isaacs and Sewell (2003), children with any chronic condition have twice the risk of developing mental health disorders compared to the healthy children. Larson, Boyle and Boaz (1984) found that self-concept was negatively correlated with the number of medical problems reported by broad sample of medical and psychiatric inpatients at a Veterans administration medical center. A study done by Hazzard and Engert (1986) in asthma clinic of a large hospital in Georgia found that, the asthmatic children between the ages of 7 and 15 years scored higher on self-concept measures than the instruments normative means that is, earlier known measures of the self-concept using the same instrument. These results were however hypothesized to be related to a denial defense mechanism that helps individuals maintain more positive self-views. Kashani, Konig, Shepperd and Wilfley (1988) also compared asthmatic children of ages 7 to 15
years, with matched controls and found no differences between the two groups on global self-concept.

Moreover Ferrari, Matthews and Barabas (1983) compared 6-to 12- year old children with diabetes and children with epilepsy, with matched controls without chronic disease. The children with epilepsy reported lower self-concepts, while the children with diabetes did not differ from the controls. Further studies by Simmons (1985) on early adolescents with cystic fibrosis of ages 12 to 15 years found that these individuals self-reported self-concept did not differ from the norm means. From the analysis above, individuals with predominantly medically based chronic disease have not shown a major significant difference in self-concept among the children with chronic diseases in comparison to children without a disease.

Although the reviewed literature (Bracken, 1996) suggested some nature of psychological impact of chronic illness, the influence of disease on global self-concept did not appear to be significant. It was then hypothesized that, children’s domain-specific self-concepts could be more adversely affected given the relationship between physical illness and physical self-concept. Studies have been done on children with chronic diseases that have a more psychological basis. The results showed that, such children depict a more negative self-concept than the normal children. For instance, Adams & Weaver (1986) examined the relationship between non-organic pain and self-concept among 10 to 16 year old pediatric
outpatients. These children scored lower on a global self-concept measure than a
group of children with physically based chronic disease. Studies done in the
United States of America by Wagner and Geffken (1986) and Wagner, Smith &
Norris (1988) showed that the more noticeable the chronic disease whether
physically or psychologically based, the lower the self-concept. HIV/Aids being a
chronic illness, its relationship with the self-concept need to be investigated hence
the basis of this study.

2.2 HIV/Aids Infection and Behavior
Prognosis of a child with chronic illness is highly dependent on how the family
functions and responds over time. Isaac and Sewell (2003) stated that the illness
places stress on the people around the sick child. For instance, the parents, the
siblings, the caregivers and the guardians who became exhausted, developed
psychological problems such as anger and depression. The reaction by others
which could be interpreted by the sick child as negative made him or her then see
him or herself as a cause of other peoples’ problems. These in turn affected the
child’s view of himself. Other factors that led to both psychosocial and behavioral
problems to the HIV/Aids sick child included prolonged ambiguity about the
diagnosis, poor communication by parents or caregivers, moving house or
changing schools, low socioeconomic status, marital discord and parental mental
health problems.
When the sick child is distressed, warning signs could be problems at school, in social relationships, low self-esteem, manifested self-blame, helplessness or hopelessness, denial, oppositional behavior, suicide, eating disorders, conduct disorders, depression, anxiety and in extreme cases poor compliance with treatment (Swanston, H., Williams, K., & Nunn, K., 2000).

According to Papola, Alvarez & Cohen (1994), less than one-quarter of HIV infected children developed HIV Associated Cognitive Motor Complex (HACM) which was characterized by a triad of motor and behavioral changes. In some children it manifested as impaired brain growth. The rest three quarters led a normal life and apart from medical effects of the disease they only struggled with emotional and psychological hurdles, especially due to social stigma associated with HIV/AIDS. These challenges eventually led to progressive dysfunctioning or even plateauing of developmental milestones (Waweru, Reynolds & Buckner, 2008).

Research has ascertained that although many children with HIV/AIDS are asymptomatic, a significant proportion experience at least some cognitive and language delays associated with HIV by the age 5 or 6 (Papola et al, 1994) which is mainly taken care of by the anti-retroviral therapy. In both adults and children living with HIV/AIDS, psychological stress, repression of anger, external locus of control and low social support were associated with poor coping (Grassi, Righi & Sighinolfi, 1998). The inability to cope led to greater social withdrawal and
deterioration of psychological symptoms. Children are especially vulnerable to believing that their illness is a consequence of being bad. They then present irritable mood, poor concentration, disruptive behavior and school failure (Bose, Moss & Brouwers, 1994). Therefore beyond managing pain, pharmacological caregivers should try to understand any psychological meaning the pain may have for the child. Developing the individual psychotherapeutic interventions that strive to understand what is being communicated and address the pains’ meaning can improve the child’s wellbeing and minimize the need for physical pain medication. Consequently, lack of any of the required therapeutic interventions, that is, the clinical therapy, psychological therapy and the behavioral therapy influences the HIV infected child’s self-perceptions and behavior (Bracken, 1996).

2.3 HIV/AIDS and Academic Performance
There is little research done on the influence of HIV/AIDS on academic performance among the primary school pupils who are sero-positive and at the same time they are orphans. A study done among the primary school girls orphaned by HIV/AIDS infected parents in Western Kenya showed that, these girls recorded poor performance in their academic work (Ochieng, 2004). The study noted that there was a negative correlation between academic performance and lack of parental love and support, fear of stigma and discrimination, teachers’ insensitivity and guardian insufficient support. Surprisingly, the primary school pupils hardly stigmatized their peers who were HIV infected according to a study done by Onyango (2005). The adolescents reported that the HIV infected peers
face stigma from the adults, the people they trust with their future. This situation influenced negatively the child’s will to learn.

Most studies done on HIV/AIDS have examined caregivers’ perception of caring for an HIV infected child and their general performance (Hamra, Ross, Karuri, Ors & D’agostino, 2005, Mawn, 1999) and those with other chronic illnesses (Dixon, 2003; Trzepacz et al, 2003) such as diabetes, hemophilia, cancer, but not specifically the HIV infected child’s perceptions and academic performance. The results of these studies revealed recurrent depictions of anxiety, depression and low self-esteem on the caregivers. As a result the caregivers’ reactions affect the sick child’s morale. The patient’s status affects their ability to perform tasks (Hamra et al, 2005).

The Australian Institute of Health and Welfare defined a disability as that which restricts a child’s ability to perform tasks associated with daily living (Isaacs & Sewell, 2003). Therefore a chronic illness like the HIV/AIDS could be disabling. Isaacs and Sewell (2003), pointed out that disability due to a chronic illness could be physical, intellectual, developmental or behavioral. Chronic illnesses could therefore result to limitations in schooling. The sick child feels unable to handle certain tasks. This is crucial especially when the child feels disabled in classroom tasks. The intellectual disability described by Isaacs and Sewell (2003) could affect the child’s academic performance.
Kruger (1998) claims that children or learners infected by HIV/AIDS struggled with the way in which they perceived themselves to be different from their peers. Therefore it is important to note that when a learner experiences him/herself as being different, it will have an effect on his or her self-image and self-esteem. For example “something is wrong with me”, “I am not okay”, “I am different from others”, “I do not fit in”. The interaction of the child’s self-concept and the effects of the HIV status affect the child’s academic performance.

Louw, Edward & Orr (2001) noted that the HIV infected learner is in most cases physically weaker and smaller than his or her peers and siblings; hence the body image had an influence on the learner’s self-concept throughout the development process which consequently affected the academic performance.

Prochownik (2002) discussed the special needs of the chronically ill child during middle childhood. She stated that chronic illness was a determining factor in developmental outcomes and quality life. Belief in the necessity of eliciting positive self-concept in learners has been recognized as foundational of much of modern educational theory and practice. At various levels of analysis and in various domains, positive self-concept was shown to be moderately correlated with positive academic outcomes. There is however, little data that would establish that this relationship is causal (Stringer & Heath, 2008). It was therefore necessary to study the relationship between the HIV/Aids and the academic performance.
2.4 Self-concept and Behavior
Several studies have been done on self-concept and maladaptive behavior.

In a study on effects of negative life events on immune suppression in children and youth infected with HIV type 1 in various child care institutions in the United States (Howland, 2000), disease progression occurred with an increase in stressful events. Stressful events noted in the study included hospitalization of the child or a family member, death of parents or sibling, parent losing a job, loss or change of housing, family member leaving or being very sick.

Instone (2000) evaluated the perceptions of 6 to 12 year old children with HIV infection who were not told their diagnosis. Interviews and children’s drawings carried out in West Coast pediatric Aids clinical trial treatment centre in the United States were used to evaluate their adjustment to illness. Children whose diagnosis had been kept secret for 2 to 8 years exhibited severe emotional distress, disturbed self-image, social isolation from conversations and the drawings showed disturbed emotions compared to those whose diagnosis had been disclosed. Richman, Brown and Clark (1984) found that self-concepts of adolescents in high school were inversely related to variables associated with maladaptive behavior.

In a study of primary and secondary school children with emotional and behavioral problems who had attended a special day school in America found that the global self-concept of children in the program was significantly lower than those of children in regular schools (Lund, 1987). In another study done in an
American special school, Lund (1989) found that the self-concept of children in a day treatment school for children with emotional and behavioral problems was also low. Moreover, these children showed non-significant gains in the self-concept over a 24 month period. Hundert, Cassie and Johnston (1988) compared children between the ages of 6 and 12 who were attending a variety of treatment programs at Niagara child development centre, Canada for emotionally disturbed children. No differences were found in children’s self-concepts across the groups and the authors reported that the children’s self-concepts did not differ significantly from the normal ranges.

Kelly (1988) carried out a study on adolescents in an American school who were emotionally disturbed and had a conduct disorder. He found that the two groups did not differ significantly from each other on the subtests or total scores on two self-concept scales. In a similar study that compared self-concept scores between children with identified behavioral and emotional problems and a normal control group, Schneider and Leitenburg (1989) found that the children identified as aggressive had a higher self-concept than the withdrawn or aggressive-withdrawn children. Even so, in this study the control group yielded the highest self-concept scores of the two groups. In another study that compared the self-concepts of normal and emotionally disturbed children between the ages of 8 and 13 years, the results showed that the emotionally disturbed group had significantly lower self-concepts than the normal subjects.
2.5 Self-concept and Academic Performance
It has been widely recognized that self-concept is an important factor that contributes to educational outcomes as well as an important outcome in its own right (Marsh, 1993). Numerous studies have reported significant relationship between self-concept and academic performance. These findings showed that academic self-concept influences students’ academic performance (Marsh & Yeung, 1997). However findings of these previous studies were inconsistent. For example, Newman (1984) found noteworthy effects of prior performance on subsequent math self-concept but no noteworthy effect of prior math self-concept on subsequent math performance.

Skaalvik and Hagtvet (1990) found some noteworthy effects of prior achievement on subsequent academic self-concept and some noteworthy effects of prior academic self-concept on subsequent academic achievement, depending on the age of the students. The study done among Norwegian school children found no causal role for self-perception in academic outcomes. Byrne (1986) found little effect of prior achievement on subsequent self-concept or of prior self-concept on academic achievement. Nevertheless, using longitudinal data, Marsh and Yeung (1997a) demonstrated that academic achievement had substantial effects on subsequent academic self-concept after controlling for the effects of prior academic self-concept and that academic self-concept also had substantial effects on subsequent academic achievement after controlling for prior academic achievement. This finding supported the findings of Helmke and Van Aken
Marsh’s suggestion is that, there is likely to be a reciprocal relationship between academic achievement and academic self-concept.

Valentine, Dubois & Cooper (2004) found that there are factors believed to account for significant growth and decline in academic performance that are external to any academic area, these factors are more in the realm of the psychological rather than the cognitive. Of these one factor that has seen significant amount of study and moderate degree of controversy is self-concept and its’ relationship to academic performance. This putative relationship according to the trio is at the core of the self-concept movement and has been central to the promotion of child-centered instruction. The core of this approach is the supposition that positive self-concept or self-perceptions of competence are causal of many positive outcomes including good academic performance.

A study done by Stringer and Heath (2008) among children in grades four and five, ages 10 years 7 months in Canada showed that self-perceptions of competence was merely related to academic performance but self-perception of competence was not causal to academic performance. Therefore they concluded that performance of those participants who rated themselves as very competent did not necessarily improve over time, while performance of those who rated themselves as less competent did not necessarily decline over time. Change in participants’ judgment of their competence over time did not obviously relate to change in performance overtime. The data obtained did not support the hypothesis that self-perception of academic competence in particular domains is a causal
factor in academic performance. Study done by Heath and Glen (2005) proposed a “self-protection” hypothesis, whereby individuals may hold positively distorted self-perceptions of competence to shield themselves from the emotional consequences of failure. In such a case a mismatch between self-perceived and demonstrated academic competence could be a signal to teachers and others of need to intervene, since it could be a sign of distress. This study implied that interaction of self-perception of academic and actual academic performance is not direct or simple. This outcome was also supported by Hoza, Gerdes, Hinshaw, Arnold, Delham & Molina (2004).

Despite the abundance of studies, there are however no conclusive studies that clearly identify the direction of the link which joins these two variables. In results obtained from the study, one could perceive that different extraneous variables can alter the results to differing degrees (Nunez & Gonzalez-pienda, 1994). These authors indicate the need to differentiate four possible patterns or causal models between self-concept and academic performance.

1) Academic performance determines self-concept. That is, academic experiences of success or failure significantly affect the pupils’ self-concept and self-image more than vice versa. This being explained by the role of evaluation by significant others or by the theory of social comparison (Tajfel & Turner, 1986)

2) Levels of self-concept determine the degree of academic achievement.

3) Self-concept and academic performance influence and determine each other mutually.
4) Additional variables may be the cause of both self-concept and academic performance among which we might find personal and environmental variables, academic and non-academic variables.

A study done by Sanchez & Sanchez (2003) among primary school students in Australia showed that the academic self-concept is associated with the academic performance. They further substantiated that the non-academic self-concept does not correlate with the measures of school academic performance.

2.6 Summary of the literature review
According to the reviewed literature the following has been noted;

1) Different chronic diseases gave varying research results on the pupils’ self-concept. In some studies some chronic diseases showed a negative correlation with self-concept. In others studies, the sick children showed higher self-concept compared to the normative measures. In other cases where the same study was done, it indicated that there is no difference between the self-concept of the terminally ill child and the matched controls. This elicited the need to study how the HIV/Aids as a chronic illness relate to self-concept.

2) Behavior in majority of the children who suffered from chronic illness was maladaptive. Most of these studies were done outside Kenya and a few touched on HIV/Aids. The studies noted that the negative behavioral attitudes were caused by the inability to cope with the disease, reaction to the response of the caregivers or family members and at times developmental dysfunction, for in instance, HACM in HIV/Aids patients. It was therefore necessary to study the behavioral changes among the Kenyan pupils and how the changes relate to HIV/Aids.
3) Little research had been done particularly on HIV status and academic performance and more so in Kenya. However, the available research findings have shown that many chronic illnesses are disabling in physical, intellectual, developmental and behavioral aspects of an individual. This directly touches on the academic ability. Therefore, this was a crucial area to study in order to know how to handle the HIV infected pupils in formal learning.

4) Numerous studies reported significant relationship between self-concept and academic performance. However, these findings were inconsistent. In some studies, self-concept was said to determine academic performance also referred to as academic achievement while in other studies academic performance is said to determine self-concept. Further studies indicated that the two variables determine each other mutually. Most of these studies were carried out among the healthy children hence the need as to why the researcher pursued the study on HIV/Aids infected children who were pupils.

5) Most of the studies done on behavior and self-concept indicated that those children suffering from terminal illnesses, especially the pupils with low scores on self-concept, also depicted behavioral and emotional problems. The area of self-concept and behavioral attitudes has not been widely studied, especially on the HIV/Aids victims. The two variables play an important role in both informal and formal learning.

Based on the literature review and the summary of the reviews the following hypotheses were made;
i. There was a significant correlation between the HIV status and the pupils’ self-concept, behavioral attitudes and the academic performance.

ii. There was significant difference in the pupils’ self-concept, behavioral attitudes and academic performance between the HIV positive and the HIV negative pupils.

iii. There was significant sex difference in the pupils’ self-concept and behavioral attitudes among the pupils.
CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.0 Introduction
This section presents a detailed description of the research design used, research variables, location of the study, population, sampling techniques and frame, research instruments, Validity and Reliability of the Research instruments, data collection procedures and analysis, Logistical and Ethical consideration.

3.1 Research design
In this study an ex post facto research design was used. The design is a systematic enquiry in which the scientist does not have direct control of the independent variables since their manifestation has already occurred or because they can not inherently be manipulated (Harold, 1973). Harold adds that inferences about relations among variables are made without direct interruptions from other variables which could be as a result of (or accompanying) the independent and the dependent variables.

There are two types of designs categorized under *ex post facto* design, that is, Correlational and Criterion group study (Cohen, Lawrence & Keith, 2003). In this study the researcher adapted the correlation design. It involved the collection of two sets of data in each correlation, one which was retrospective and the other being depended on the first one with an aim of determining the relationship between the two sets. The independent variable in this study was the HIV Status
which was already determined for the respondents. The HIV status was being investigated to find whether it had any relationship with the other variables under study, that is, the self-concept, the behavioral attitudes and the academic performance. Therefore, the ex post facto research design was suitable for this research study since it was not possible to manipulate the independent variable. The manifestation of the independent variable had already occurred.

3.2 Research Variables
The variables studied were self-concept, HIV status, academic performance, behavioral attitudes and sex. Sex was studied as an antecedent variable in that it did not interfere with the established relationship between the independent and dependent variables rather it clarified the influence that preceded such a relationship. Sex as a variable in this study emphasizes the relationship between the HIV status and the dependent variables, the self-concept, behavioral attitudes and academic performance.

3.3 Location of the Study
The study was carried out in Nairobi province. Nairobi is Kenya’s capital city and the largest in the country. It has an estimated population of between 3 to 4 million people. It covers an area of about 150 square kilometers. The province has three administrative districts namely; Nairobi West, Nairobi East, Nairobi North. It has the highest number of children’s homes (142) in comparison to the other Kenyan cities. The researcher concentrated on Nairobi West district which has fairly high
number of children’s homes (52) taking care of the HIV positive children (Ministry of Home Affairs, CCI report, 2009).

Nairobi West consists of three divisions which are Langata, Dagoreti, and Westlands. Some children’s homes in this areas cared for only HIV infected children who covered all ages including young adults while others cared for children with different needs including HIV positive children. Children who had attained the school going age were enrolled in the government run schools commonly called ‘the public schools’. Church run schools also enrolled some HIV infected children especially those under their care. However, the researcher also worked with public schools which had identified the HIV infected children who were living with their parents or relatives and were enrolled in those schools.

Nairobi-West has many children homes (52) followed by Nairobi-East (42) according to charitable children institutions (CCI) report (Ministry of Home Affairs, 2009). It also has the largest informal settlement in Africa Known as Kibera. A study done in Kibera informal settlement showed that most of the women of child bearing age did not attend the antiretroviral prophylaxis for mother to child, at least 43.2% of the HIV infected mothers. This led to high number of mother to child HIV transmissions (Biteyi & Waweru, 2009). As expected there was considerably a high number of school going children who were HIV infected hence the importance of this study.
3.4 Description of the Population
As indicated earlier, the targeted population was the HIV infected pupils who were school going in both the public and private schools. The pupils came from both children homes and family set ups. A total of 308 pupils were included in this study, 218 living with their families and guardians while 90 living in the children homes. The HIV positive pupils were 154 while the HIV negative pupils were an equal number for comparison purposes. Nearly half of the HIV positive pupils were obtained from the same school. The location of this school was in an area where HIV/Aids awareness and education programmes had been running for over a decade. Thus the school administration, the teachers and the pupils were well informed and open enough to fight the pandemic. The population studied included pupils of ages between 9-17 years. The research assistants were sampled from the primary school teachers, a teacher per class. A total of 47 research assistants participated in the research.
Rosenberg (1985) argues that disturbance of self-image is most acute during early adolescence. Bracken (1996) points out that people define their self-concept as they advance in age. At preadolescent and adolescent stages children face transitional challenges which prompt them to try to find who they are, to form an identity and to find their place in the society. This is a period characterized by a wish to dispel the feelings of dependency on parents and caregivers. The emotional and physical changes beginning to occur are perceived as part of the sickness by the HIV/Aids infected pupils.
3.5 Sampling Technique and Sample Size

The sample size was outlined by using a sample frame for the pupils staying in the children homes and pupils staying with parents or guardians.

3.5.1 Sampling technique

Two types of sampling were used in this study, that is, the purposive sampling and the systematic random sampling.

Purposive Sampling: Purposive sampling was used to select children who were HIV infected because only limited numbers were available. The same sampling procedure was used to select teachers who assisted in filling the Questionnaires on behavioral attitudes of the pupils. According to Mugenda & Mugenda (2003), purposive sampling allows the researcher to use cases that have required information with respect to the objectives of his or her study. Therefore the cases of subjects are hand picked because they possess the required characteristics.

This type of sampling allows for small samples (Borg & Gall, 1993) although this is one of the commonly pointed weaknesses. The sampling involved 154 HIV infected pupils of ages 9-17yrs. The sampling procedure was carried out at the children’s homes with the help of the homes’ managers by using their medical records so as to protect the children from the social stigma associated with HIV/AIDS. After identifying them, the modified semantic differential scale was administered to all the pupils in every class where the required group (HIV infected pupils) belonged. The uninfected peers were used as the comparison group in the same class in a school set up. Those HIV infected pupils living with their parents or relatives and were school going, were identified through either
both the school counselors and the class teachers in some cases or through the head teacher’s office in other cases. The evidence of their infection was that they were already on antiretroviral drugs. The HIV negative comparison group was sampled such that it was the same number as the HIV positive group in every class.

**Systematic Random Sampling**: Systematic random sampling was used to select the HIV negative pupils from each class after the modified semantic differential scale for measuring self-concept was administered to all the pupils in the class. The researcher separated the HIV positive respondents’ filled forms from the HIV negative respondents’ filled forms then carried out systematic random sampling on the HIV negative respondents’ forms privately. To obtain a random sample using this method, the list of all the members in the sampling frame were randomized. After randomizing, the researcher decided on the sampling interval. If the sampling interval is ‘k’ then she would pick every $k^{th}$ pupil from the starting point and continue in that order until the sample size was achieved.

In this study different values of k were used depending on the number of forms filled by the HIV negative pupils per class. For instance, in school R the total number of pupils in class four was 36. Among those 36, only 6 pupils had been identified as being HIV positive. The researcher separated the six forms from the rest and using a sampling interval of 5, sampled 6 forms from the remaining 30 by systematic random sampling. In the same school, only 7 were identified as being HIV positive in class five out of 43 pupils. Systematic random sampling was
carried out on 36 pupils with a sampling interval of 5. Therefore, in the different classes dealt with in this research and in different schools, different sampling intervals were used depending on the number of respondents required for different comparison group.

3.5.2 Sampling Frame
As earlier indicated the total number of registered children’s homes in Nairobi province was 142 but the one’s hosting HIV+ children were 14. The number of the government schools which had officially enrolled these children was equally low. Nevertheless, the researcher opted to include public schools situated around an informal settlement where infected pupils and adults had been exposed to HIV/Aids education programmes within Nairobi West district. These were programmes run by NGOs in conjunction with the government in fight against HIV associated stigma. Out of about 132 public and private primary schools in Nairobi West district (Nairobi City council Quarterly Annual Report, 2009) the researcher purposely sampled 9 schools and labeled them as, R, S, T, U, V, W, X, Y, Z. The researcher also managed to access four children homes which were identified by the letters, A, B, C and D.
Table 3.1  Sampling Frame A: Children Living in Children Homes

<table>
<thead>
<tr>
<th>Children Homes</th>
<th>Schools</th>
<th>HIV Positive</th>
<th>HIV Negative</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>R</td>
<td>24</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>S</td>
<td>21</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>T</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>B</td>
<td>U</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>C</td>
<td>V</td>
<td>7</td>
<td>-</td>
</tr>
<tr>
<td>D</td>
<td>W</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>75</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

The HIV negative respondents were largely sampled from those staying with their parents, relatives or guardians. This is because during this research it was discovered that there were few children homes that were able to support their children through primary school. Therefore the comparison group was drawn from the respondents staying with their families except in Primary school U where the HIV positive respondents and HIV negative respondents lived together and also schooled together in a children’s home.
Table 3.2 Sampling Frame B: Children living with their Families or Relatives.

<table>
<thead>
<tr>
<th>School</th>
<th>HIV Positive</th>
<th>HIV Negative</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
<td>-</td>
<td>24</td>
</tr>
<tr>
<td>S</td>
<td>-</td>
<td>21</td>
</tr>
<tr>
<td>T</td>
<td>-</td>
<td>5</td>
</tr>
<tr>
<td>V</td>
<td>-</td>
<td>7</td>
</tr>
<tr>
<td>W</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td>X</td>
<td>77</td>
<td>77</td>
</tr>
<tr>
<td>Y</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Z</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>79</strong></td>
<td><strong>139</strong></td>
</tr>
</tbody>
</table>

The number of respondents living with their families was 218 while the number of respondents living in the children’s homes was 90. The number of the HIV positive respondents was equal to the number of HIV negative respondents hence the total number of respondents was 308.

3.6 Description of the Instruments

A modified semantic differential scale was used to measure the children’s self-concept together with Conner’s teacher rating scale which was used for behavioral evaluation. Academic performance was determined using the terminal exam grades which were availed through an Academic performance form from the school records.
3.6.1 Modified Semantic Differential Scale.
The scale was adopted from Olowu (1982). It has been used in Kenya by Mwathi (1998) and Juma (2004). It covers six self-areas. These include; academic self, emotional self, social self, physical self, family self, and character self. Each of the six self areas is represented by items on a scale. Both Mwathi and Juma used the scale with adolescents. After considering the scales’ content and face validity, the researcher was satisfied and preferred to use it in this study with the pupils with a few modifications.

The scale consisted of eighteen (18) bipolar adjectives and phrases separated by a line similar to a Likert type rating scale. The items were randomly placed so as to avoid set responses from the subjects. The respondent was required to check any of the five positions shown along the line separating each pair of phrases of adjectives.

<table>
<thead>
<tr>
<th>Self-concept domain/areas</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical self</td>
<td>1-3</td>
</tr>
<tr>
<td>Character self</td>
<td>4-6</td>
</tr>
<tr>
<td>Emotional self</td>
<td>7-9</td>
</tr>
<tr>
<td>Academic self</td>
<td>10-12</td>
</tr>
<tr>
<td>Social self</td>
<td>13-15</td>
</tr>
<tr>
<td>Family self</td>
<td>16-18</td>
</tr>
</tbody>
</table>

For use in scoring, numerical values of 1-5 were assigned to each of the five positions on the scale as shown below.
The numerical value against the cross mark made by the respondent was the score for the particular item (i.e. 3). The total self-concept score for each subject was obtained by adding the numerical values for all the 18 items.

Each subject’s obtained total self-concept was then classified as positive or negative in relation to the expected mean score obtained. To obtain the mean score, the lowest possible score per item (i.e. 1) and the highest possible score (i.e. 5) was added and their sum divided by 2 to give the expected mean score per item

$$\frac{1+5}{2} = \frac{6}{2} = 3$$

The value obtained (3) was multiplied by 18 to give the expected total mean score per subject.

$$18(3) = 54 \text{ (expected total mean score per subject)}$$

This mean was used to classify or categorize subjects score as positive or negative. For various domains of self-concept an individual pupil’s score was determined by his or her total score in the three items measuring that particular domain of self.
3.6.2 Measurement of Academic Achievement
Each student’s total aggregate score of the five subjects examined in the end of the term examination was obtained from school examination records through academic performance form. Terminal Exam marks for three consecutive school terms were added and their mean mark and grade obtained. The researcher used the average grades, for instance, A or B or C or D to indicate performance since these are the grades used by the Kenya National Examination Council. The grades were then classified into three categories. Those with grades A and B were classified as High performers while those who obtained grades C and D were classified as average and low performers respectively.

3.6.3 Measurement of the HIV Status
The pupils’ HIV status had been clinically confirmed as sero-positive and the respondents under study were already under antiretroviral therapy. Those living in children homes had clinical records confirming their sero-positive status under custody of the various institutions. The respondents staying with their families or relatives or guardians were identified by the fact that they were using the antiretroviral drugs which was specifically known to the class teacher or the school counselor or the Head teacher.

3.6.4 Conner’s Teacher Rating Scale
This scale was used to measure any possible emotional and behavioral problems. It was adopted from the original Teacher Rating Scale by Conner (1969). It was revised in 1997 (Sattler & Hoge, 2006) and it provides for cross-informant
assessment of behavior problems in children with a primary emphasis on externalizing problems. The teacher version of the rating scale was designed for rating children of ages 3-17 years. The scale had been widely used in the United States of America and in Canada (Sattler & Hoge, 2006). Though the revised form of Conner’s Teacher Rating Scale had shown considerably high reliability and satisfying validity, Conner states that the original scale, which had more items, had greater reliability (Gabel, 1981). Therefore in this research, the original form of Conner’s Teacher Rating scale was preferred. The adopted scale had 3 subscales with each sub scale representing behaviors commonly found in children, at school. The scale had a total of 39 items.

Scoring Conner’s Teacher rating scale
The Teacher Rating Scale consisted of 39 items each of which was Scored from 0 to 3. It reflected the rater’s judgment that the behavior occurs, “not at all” “just a little” ,”pretty much”, and “very much” respectively. Subscale scores were obtained by summing the scores for the particular items contained within the subscale. Higher scores reflected that there were behavioral problems to a greater degree than would the lower scores. Scores were categorized into two, that is, scores below the mean score were considered to depict positive behavioral attitudes while scores above the mean score indicated negative behavioral attitudes. The mean score was obtained by calculating the average score a respondent was expected to get.

The lowest possible score= 0 × 39= 0
The highest possible score equals $3 \times 39 = 117$

Average behavioral attitude score equals $\frac{0 + 117}{2} = 59$

If a respondent got a score below 59 thus he or she had more positive behavioral attitudes and if a respondent scored 59 and above thus he or she had more negative behavioral attitudes.

### 3.7 Pilot Study

A pilot study was done on a random sample of 30 pupils drawn from outside the main study sample though randomly sampled from Nairobi West. The school and the children’s home where the pilot study was done could not be revealed, a condition put by the institution’s administration. The study was done to pre-test the instruments of this research in order to determine their validity and reliability. This was also helpful in checking the workability of the statistical procedures that were used in research analysis. In the pilot study, Pygmalion effect was noted where the respondents would tend to please the researcher by ticking the adjectives that would describe a likable personality. The researcher decided to promise a reward to the pupils who would fill their scale honestly. The reward was later given to all the pupils.

### 3.7.1 Validity of the Instruments

The semantic differential scale has been used in Nigeria by Olowu (1982). He pre-tested the instrument and reported a concurrent validity of 0.55. Due to this
high validity, it was preferred for this particular study. However, the researcher ascertained that the scale had content validity.

The Conner’s teacher rating scale has been used in the United States of America on behavioral research (Gabel, 1981). Its Construct validity was found to be satisfactory based on the results of factor analysis used to construct the scale (Sattler & Hoge, 2006). These results were supported by correlations between parallel scores from the measures whereby the scores significantly discriminate between clinical and Non-clinical groups. The researcher used this scale in the pilot study to establish its applicability in Kenyan situation and it proved to be appropriate for the study.

3.7.2 Reliability of the Research Instruments
Semantic differential scale has been reported to have a test-retest reliability coefficient of 0.7 (Olowu, 1982). It has also been used in Kenya by Mwathi (1998) and Juma (2004) with a high reliability. However in this research a few modifications were made to improve on its reliability especially on the order of the adjectives used and gender sensitivity of the same. Reliability analysis done on pilot study data showed a reliability coefficient of 0.943 (Cronbach alpha).

The Conner’s teacher rating scale has been successfully used in the past in research, showing internal consistency reliabilities ranging from 0.73-0.96. Its’ Test-retest reliabilities with a sample of 49 children done over 6 to 8 weeks was found with re-test interval range from 0.47 to 0.86 (Sattler & Hoge, 2006).
Reliability analysis done on this scale during the pilot study showed a reliability coefficient of 0.955 (Cronbach alpha).

3.8 Data Collection Techniques
The researcher obtained research permit from the Ministry of Education to enable her access the schools that were sampled. Since the research involved vulnerable children who by law ought to be protected by the government, the researcher required a letter from the office of the Vice President (children’s department) and also the Nairobi city council Education department to be allowed to carry out the research. The research was carried out between May and early July, 2009. The second term of the year in Kenyan primary schools is very busy especially the last month of the term because of the end-term examinations. The researcher concentrated on the first month of the term and the second month. Modified semantic differential scale was administered to the pupils with the help of the class teachers and school counselors in various classes in all the sampled schools. This way the researcher ensured that all the pupils undertook the assessment in the classroom environment. The Conner’s teacher rating scale was administered by the researcher to the class teachers and the school counselors. Each class teacher or school counselor was given the Conner’s scale to fill about their pupils’ behavior within one week. The pupils’ academic performance was obtained from the class teachers in the small schools and the school examination officer in more populated schools by using an academic performance form.
3.9 Data Analysis
The data obtained from the modified semantic differential scale, the Conner’s teacher rating scale and the academic performance form was scored and coded for statistical analysis. The researcher used the Statistical Packages for Social Sciences (SPSS) computer programme to analyze data. Both descriptive and inferential statistical procedures were used as shown below.

**Descriptive Statistics**
Frequency distributions, means and percentages were used to describe and summarize the data involving the variables under study, that is, self-concept, behavioral attitudes and academic performance in the two genders and across the ages.

**Inferential Statistics**
The following null hypotheses were statistically tested at $\alpha = 0.05$ levels of significance:

$H_{01}$ There is no relationship between the HIV status and self-concept of the pupils.

$H_{02}$ There is no relationship between the HIV status and behavioral attitudes of the pupils.

$H_{03}$ There is no relationship between the HIV status and academic performance of the pupils.

For $H_{01}, H_{02}, H_{03}$: Chi-square tests were used

$H_{04}$ There are no differences in the self-concept, behavioral attitudes and academic performance due to the HIV status between HIV infected and HIV uninfected pupils.
There are no gender differences in self-concept and behavioral attitudes among the pupils.

For Ho4 and Ho5: t-test for independent samples and Pearson product moment correlations were used.

3.9.3 Logistical and Ethical Consideration
The researcher arranged for the data collection process before the actual data collection could take place with the schools’ administration. This was helpful when it came to the right time to be in the venue of data collection since it ensured there was no time wastage.

As explained earlier the researcher was aware that this was a sensitive research. Therefore the HIV infected pupils filled the questionnaires together with the other uninfected pupils then the researcher identified the HIV infected children through their guardians and teachers. It was not disclosed to the sampled respondents that the researcher’s intention was to focus on the HIV status. This way the HIV infected pupils were protected from any emotional or psychological harm during the research. The research assistants talked to all the pupils before filling the modified semantic differential scale in order to understand how to fill correctly and also gave them a chance to choose whether to fill or not. The school counselors and the teachers were informed and prepared before they were given the questionnaires to fill about pupils’ behavior.
CHAPTER FOUR
DATA ANALYSIS, RESULTS AND DISCUSSION

4.0 Introduction
This chapter contains the results obtained in the study. It consists of two sections. The first section presents a descriptive statistical analysis of the data on the student’s age, self-concept, academic performance, behavioral attitudes and gender. Cross tabulations on the above mentioned variables is presented to show clear comparison of the relationship between the variables. The second section includes the inferential statistical analysis whereby the findings obtained from each hypothesis are discussed.

4.1 Descriptive Statistical Analysis
4.1.1 Students Age
The data was collected from a sample of 308 primary school pupils. It comprised of 154 HIV infected and 154 HIV uninfected pupils. The mean age of the pupils was 12.44 with the highest number of the respondents being 13 years old. This is because this age falls within the upper classes in the primary school which were the chosen classes. The researcher intended to strictly deal with pupils ages 10yrs to 14yrs but since the sample was purposely done, children with ages slightly below and slightly above were involved. It was observed that some HIV infected children had delayed in the primary school and therefore the researcher decided to involve them despite their age. The research was limited to the upper classes of the primary school from class 4 up to class 8 in the Kenyan primary schools in
Nairobi-West division. The mean age and its standard deviation were clearly outlined in Figure 4.1 as shown below to emphasize age distribution of the sample.

**Histogram on Distribution of Age**

![Histogram on Distribution of Age](image-url)

**Age Variation**

**Figure 4.1**

It is clear from Figure 4.1 that there was a normal age distribution with a mean of 12.44 and standard deviation of 1.60.

**Table 4.1 Distribution of Student’s Age in terms of HIV Status**

<table>
<thead>
<tr>
<th>Age group</th>
<th>Negative</th>
<th>Positive</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>9-10yrs</td>
<td>26(8.4%)</td>
<td>6(1.9%)</td>
<td>32(10.4%)</td>
</tr>
<tr>
<td>11-13yrs</td>
<td>105(34.1%)</td>
<td>97(31.5%)</td>
<td>202(65.6%)</td>
</tr>
<tr>
<td>14-17yrs</td>
<td>23(7.5%)</td>
<td>51(16.6%)</td>
<td>74(24.0%)</td>
</tr>
<tr>
<td>Total</td>
<td>154(50.0%)</td>
<td>154(50.0%)</td>
<td>308(100.0%)</td>
</tr>
</tbody>
</table>

Results in Table 4.1, show that the number of the pupils in the age group 11-13 years was the majority (65.6%). This simply implies that the required population
was relatively well captured. However, there were a bigger number of respondents who were HIV positive and they were past 14yrs of age (16.6%) as compared to those who were HIV negative and with over 14yrs (7.5%). This could be an indication that the disease may have contributed to their delay in learning.

Table 4.2 Distribution of Student’s Age based on Sex.

<table>
<thead>
<tr>
<th>Age group</th>
<th>Sex</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Boy</td>
<td>Girl</td>
</tr>
<tr>
<td>9-10yrs</td>
<td>18(5.8%)</td>
<td>14(4.5%)</td>
</tr>
<tr>
<td>11-13yrs</td>
<td>97(31.5%)</td>
<td>105(34.1%)</td>
</tr>
<tr>
<td>14-17yrs</td>
<td>42(13.6%)</td>
<td>32(10.4%)</td>
</tr>
<tr>
<td>Total</td>
<td>157(51.0%)</td>
<td>151(49.0%)</td>
</tr>
</tbody>
</table>

There was no significant difference in the number of boys and girls sampled in the study. According to the percentages, there was relative closeness in numbers of the boys and girls. The boys were 51.0% while the girls were 49.0%. This difference could have occurred due to the fact that both the HIV negative and the HIV positive pupils (respondents) were randomly selected without considering their gender.

4.1.2 Student’s Self-concept
The variable was measured by use of semantic differential scale. The outcome was as follows.

Table 4.3 Descriptive Analysis of Student’s Self-concept

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std deviation</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-concept</td>
<td>308</td>
<td>70.17</td>
<td>12.948</td>
<td>-1.683</td>
<td>2.845</td>
</tr>
</tbody>
</table>
Table 4.3 shows that, the self-concept mean was 70.17 with a standard deviation value of 12.95. The dispersion of the self-concept values was relatively moderate with a fairly big variation. The range between the highest and the lowest self-concept values was quite wide. This indicated that there were extreme occurrences on both sides which was further made interesting by the flatness of the peak on the distribution (kurtosis=2.845). This could mean that the pupils’ self-concept concentrated around the mean value. The distribution was negatively skewed (Skewness=-1.683) an indicator that there were more scores above the mean than below the mean. This means most of the respondents had a high self-concept.

### Table 4.4 Descriptive Analysis of Self-concept based on Sex.

<table>
<thead>
<tr>
<th>Self-concept</th>
<th>Sex</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Boys</td>
<td>Girls</td>
</tr>
<tr>
<td>Positive</td>
<td>138(44.8%)</td>
<td>138(44.8%)</td>
</tr>
<tr>
<td>Negative</td>
<td>19(6.2%)</td>
<td>13(4.2%)</td>
</tr>
<tr>
<td>Total</td>
<td>157(51.0%)</td>
<td>151(49.0%)</td>
</tr>
</tbody>
</table>

In a cross tabulation carried out, it was observed that more boys had low self-concept than girls although the number of boys in the study was more than the number of girls. 59.37% of the pupils who had low self-concept were boys while the rest (40.63%) were girls.

### Table 4.5 Descriptive Analysis of Self-concept in terms of Age

<table>
<thead>
<tr>
<th>Age group</th>
<th>Total self-concept</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age group</td>
<td>Positive</td>
<td>Negative</td>
</tr>
<tr>
<td>9-10yrs</td>
<td>31(10.1%)</td>
<td>1(0.3%)</td>
</tr>
<tr>
<td>11-13yrs</td>
<td>189(61.4%)</td>
<td>13(4.2%)</td>
</tr>
<tr>
<td>14-17yrs</td>
<td>56(18.2%)</td>
<td>18(5.8%)</td>
</tr>
<tr>
<td>Total</td>
<td><strong>276(89.6%)</strong></td>
<td><strong>32(10.4%)</strong></td>
</tr>
</tbody>
</table>
The results in Table 4.5 showed that total self-concept was different among the different age-groups. The respondents in the age bracket (9-10yrs) old had the lowest number of those who had negative self-concept, that is, 0.3% compared to 4.2% of those who were between 11-13yrs and 5.8% of those who were in the ages 14-17yrs. Among the pupils with negative self-concept (10.4%), majority were in the age-group 14-17yrs.

Table 4.6 Descriptive Analysis of Self-concept in terms of Area of Residence

<table>
<thead>
<tr>
<th>Area of Residence</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children's home</td>
<td>75(24.4%)</td>
</tr>
<tr>
<td>Family</td>
<td>15(4.9%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>90(29.2%)</strong></td>
</tr>
</tbody>
</table>

The results in Table 4.6 showed that more pupils staying in children’s home had a problem with their self-concept (16.67%=15/90) than it was the case with those staying with their parents or guardians (8.72%=17/218). It was further noted that the number of pupils who were staying with either their parents or guardians (70.8%) were more than those who were staying in children’s’ homes (29.2%). However, majority of the respondents had positive self-concept with 24.4% being those who were staying in the children’s homes while 65.3% staying with their families.

Table 4.7 Descriptive Analysis of Self-concept in terms of HIV Status

<table>
<thead>
<tr>
<th>HIV status</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative</td>
<td>152(49.4%)</td>
</tr>
<tr>
<td>Positive</td>
<td></td>
</tr>
<tr>
<td>Negative</td>
<td>2(0.6%)</td>
</tr>
<tr>
<td>Positive</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>154(50.0%)</strong></td>
</tr>
</tbody>
</table>
Generally, the respondents had high self-concept with a mean of 70.17. This could have probably been because of the Pygmalion effect or the demand characteristics where the pupils respond positively due to what they perceive is the researcher’s expectation. This was evident during the pilot study and precaution was taken during the actual research. This effect could only be a probability since the necessary measures were taken. However 49.4% of the respondents who were HIV negative had high self-concept compared to the 40.3% who were HIV positive and had high self-concept. It was noted that majority of the respondents who showed negative self-concept were HIV positive (9.7%) compared to those who had negative self-concept and were HIV negative (0.6%).

4.1.3: Behavioral Attitudes
This variable was measured using the Conner’s teacher rating scale. The descriptive statistics were done by involving cross tabulations, percentages and measures of central tendency.

| Table 4.8 Descriptive Analysis of Behavioral Attitudes |
|-----------------|---------------|----------------|----------------|----------------|----------------|
| Behavioral attitudes | N     | Mean  | Std Deviation | Skewness | Kurtosis |
| Behavioral attitudes | 308 | 33.11 | 22.951 | 0.529 | -1.243 |

Data from the Table 4.8 shows that behavioral attitudes mean was 33.11 with a standard deviation of 22.92. This indicated that there was a wide variation of scores with very few respondents having negative behavior. This fact was emphasized by the fairly sharp peak of the distribution (kurtosis =-1.243). The distribution was positively skewed (Skewness=0.529) meaning that there were more respondents with scores below the mean score. It therefore implied that
there were more respondents with positive behavior than there were with negative behavior. In addition, a cross tabulation on behavioral attitudes and HIV status gave the results in the table 4.9.

**Table 4.9  Descriptive Analysis of Behavioral Attitudes and HIV Status**

<table>
<thead>
<tr>
<th>Behavioral attitudes</th>
<th>HIV status</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Negative</td>
<td>Positive</td>
</tr>
<tr>
<td>Positive</td>
<td>150(48.7%)</td>
<td>78(25.3%)</td>
</tr>
<tr>
<td>Negative</td>
<td>4(1.3%)</td>
<td>76(24.7%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>154(50.0%)</strong></td>
<td><strong>154(50.0%)</strong></td>
</tr>
</tbody>
</table>

The number of pupils who were HIV positive and also had a negative behavior were more (24.7%) compared to those who were HIV negative and had negative behavior (1.3%). It also showed that 48.7% of the HIV negative respondents had positive behavior while 25.3% of the HIV positive showed positive behavior. There were few respondents who were HIV negative and showed negative behavioral attitudes (1.3%) compared to those who were HIV positive and showed negative behavioral attitudes (24.7%).

**Table 4.10  Descriptive Analysis of Behavioral Attitudes and Area of Residence**

<table>
<thead>
<tr>
<th>Area of Residence</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children's home</td>
<td>Family</td>
</tr>
<tr>
<td><strong>Behavioral attitudes</strong></td>
<td></td>
</tr>
<tr>
<td>Positive</td>
<td>50(16.2%)</td>
</tr>
<tr>
<td>Negative</td>
<td>40(13.0%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>90(29.2%)</strong></td>
</tr>
</tbody>
</table>

The behavioral attitudes measured showed that most of the pupils had positive behavior; however, more children staying in the children homes (44.4%) depicted
negative behavioral attitudes than the children staying with their parents or guardians (18.34%). This outcome was based on the fact that the respondents staying in children homes were fewer (29.2%) compared to those staying with their parents or guardians or even relatives (70.8%). The respondents staying in children homes with negative behavioral attitudes were 40 out of 90 within the group while those staying with their family or guardian and also had negative behavioral attitudes were 40 out of 218 within that group. However in both groups the number of respondents with positive behavioral attitudes was more than the number of respondents with negative behavioral attitudes.

Table 4.11 Descriptive Analysis of Behavioral Attitudes and Sex

<table>
<thead>
<tr>
<th>Behavioral attitudes</th>
<th>Sex</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Boy</td>
<td>Girl</td>
</tr>
<tr>
<td>Positive</td>
<td>119(38.6%)</td>
<td>109(35.4%)</td>
</tr>
<tr>
<td>Negative</td>
<td>38(12.3%)</td>
<td>42(13.6%)</td>
</tr>
<tr>
<td>Total</td>
<td>157(51.0%)</td>
<td>151(49.0%)</td>
</tr>
</tbody>
</table>

The number of boys who showed negative behavioral attitudes was slightly less than the number of girls who showed that same behavior with the boys rating at 12.3% and the girls rating at 13.6% regardless of their HIV status. The number of boys with positive behavioral attitudes was more than the number of girls with positive behavioral attitudes.

Table 4.12 Descriptive Analysis of Behavioral Attitudes and Self-concept

<table>
<thead>
<tr>
<th>Behavioral attitudes</th>
<th>Total self-concept</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Positive</td>
<td>Negative</td>
</tr>
<tr>
<td>Positive</td>
<td>221(71.8%)</td>
<td>7(2.3%)</td>
</tr>
<tr>
<td>Negative</td>
<td>55(17.9%)</td>
<td>25(8.1%)</td>
</tr>
<tr>
<td>Total</td>
<td>276(89.6%)</td>
<td>32(10.4%)</td>
</tr>
</tbody>
</table>
In Table 4.12, out of 228 respondents who had positive behavioral attitudes, 96.92% showed positive self-concept. It was noted that 8.1% of the respondents had both negative behavior and negative self-concept. If compared to 2.3% of those who had negative behavioral attitudes and positive self-concept there was a significant difference. The total number of the respondents with negative behavioral attitudes (26.0%) was more than the respondents with negative self-concept (10.4%).

4.1.4 Academic Performance
Academic performance was obtained by filling an academic form which included academic information of the respondent over a period of three school terms. Cross tabulation tables were used to bring out the relationship between academic performance and the other variables.

Table 4.13 Descriptive Analysis of the Academic Performance

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std Deviation</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean mark</td>
<td>308</td>
<td>297.53</td>
<td>64.458</td>
<td>.043</td>
<td>-1.217</td>
</tr>
</tbody>
</table>

Table 4.13 shows that the mean of the academic performance is 297.53 with standard deviation of 64.46. The maximum mark for the five subjects tested in primary schools is 500. The distribution was positively skewed (Skewness=0.043) hence more students scored below the mean.

Table 4.14 Descriptive Analysis of Academic Performance and HIV Status

<table>
<thead>
<tr>
<th>HIV status</th>
<th>A (%)</th>
<th>B (%)</th>
<th>C (%)</th>
<th>D (%)</th>
<th>Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative</td>
<td>51(16.6)</td>
<td>63(20.5)</td>
<td>31(10.1)</td>
<td>9(2.9)</td>
<td>154(50)</td>
</tr>
<tr>
<td>Positive</td>
<td>4(1.3)</td>
<td>27(8.8)</td>
<td>39(12.7)</td>
<td>84(27.3)</td>
<td>154(50)</td>
</tr>
<tr>
<td>Total</td>
<td>55(17.9)</td>
<td>90(29.2)</td>
<td>70(22.7)</td>
<td>93(30.2)</td>
<td>308(100)</td>
</tr>
</tbody>
</table>
The results in Table 4.14 showed that most of the HIV positive respondents did not register high performance in their academic performance. It was noted that 40% of the respondents who were HIV positive showed low academic performance scoring grade C and D compared to the 13% of the HIV negative respondents who showed low performance. In comparison, more than half of the HIV positive pupils registered low performance than the HIV negative pupils. From Table 4.14 above, the number of HIV positive respondents increased as the grade decreased from A to D. The HIV negative respondents performed much better compared to their HIV positive counterparts. The teachers attributed the low performance among the HIV positive population to absenteeism from school many days in the term. The teachers also had made an observation that most of the guardians and parents showed no positive expectation in terms of academic performance for the HIV positive pupils.

Table 4.15  Descriptive Analysis of Academic Performance and Area of Residence

<table>
<thead>
<tr>
<th>Mean grade</th>
<th>Total(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (%)</td>
<td>B (%)</td>
</tr>
<tr>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Children home</td>
<td>6(1.9)</td>
</tr>
<tr>
<td>Family</td>
<td>49(15.9)</td>
</tr>
<tr>
<td>Total</td>
<td>55(17.9)</td>
</tr>
</tbody>
</table>

Among those pupils staying with either their parents or guardians 37% of them showed high performance, that is scoring grades A and B in their academics ignoring their HIV status while 33.8% performed poorly where they scored grades C and D. Among those staying in the children’s homes 10% recorded high
performance on average while 19.1% recorded low performance on average. However, the population from the children’s homes was quite low (29.2%) compared to those staying with their families or guardians (70.8%). Nevertheless, even when considered separately, it was clear that the children staying with their parents or guardians performed much better than the children staying in the children homes.

### Table 4.16 Descriptive Analysis of Academic Performance and Self-concept

<table>
<thead>
<tr>
<th>Self-concept</th>
<th>Academic Performance Level</th>
<th>Total(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High performance</td>
<td>Average performance</td>
</tr>
<tr>
<td>Positive</td>
<td>137 (44.5%)</td>
<td>63 (20.5%)</td>
</tr>
<tr>
<td>Negative</td>
<td>6 (1.9%)</td>
<td>8 (2.6%)</td>
</tr>
<tr>
<td>Total</td>
<td>143 (46.4%)</td>
<td>71 (23.1%)</td>
</tr>
</tbody>
</table>

Most of the respondents (44.5%) who showed high performance in their academics had positive self-concept out of the total population. Those pupils who had negative self-concept, 1.9% recorded high academic performance out of the whole population. This percentage if calculated within the group with negative self-concept it was still low at 18.8% while 25% recorded average academic performance and the rest 56.2% showed low academic performance. Out of the 276 respondents with a positive self-concept 49.6% registered high performance, 22.8% recorded average academic performance while 27.5% showed low academic performance. It was evident that the number of the respondents with negative self-concept increased as the academic performance decreased from high to low performance. A comparison was done using the pupils’ academic grades and Table 4.17 explains further.
Table 4.17  Descriptive Analysis of Academic Performance and Self-concept

<table>
<thead>
<tr>
<th></th>
<th>Mean grade</th>
<th>Total(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A (%)</td>
<td>B (%)</td>
</tr>
<tr>
<td>Self-concept</td>
<td>Positive</td>
<td>54(17.5)</td>
</tr>
<tr>
<td></td>
<td>Negative</td>
<td>1(0.3)</td>
</tr>
<tr>
<td>Total</td>
<td>55(17.9)</td>
<td>90(29.2)</td>
</tr>
</tbody>
</table>

From Table 4.17, it is evident that although the respondents with negative self-concept were few (10.4%), more than half recorded low performance (7.8%) which was considered as below average. The grades A and B were considered as above average grades which is also the high performance category. Grade C is average performance while grade D is considered as low performance. It was noted that only 2.6% had a negative self-concept and recorded a high performance.

Table 4.18  Descriptive Analysis of the Academic Performance and Behavior

<table>
<thead>
<tr>
<th>Academic Performance Level</th>
<th>Behavioral Attitudes</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Positive</td>
<td>Negative</td>
</tr>
<tr>
<td>High performance</td>
<td>133(43.2%)</td>
<td>10(3.2%)</td>
</tr>
<tr>
<td>Average performance</td>
<td>52(16.9%)</td>
<td>19(6.2%)</td>
</tr>
<tr>
<td>Low performance</td>
<td>43(14.0%)</td>
<td>51(16.6%)</td>
</tr>
<tr>
<td>Total</td>
<td>228(74.0%)</td>
<td>80(26.0%)</td>
</tr>
</tbody>
</table>

In Table 4.18 a comparison between academic performance and behavioral attitudes showed that a high percentage (43.2%) of the respondents who performed well in their academics had positive behavioral attitudes. Similarly, there were very few pupils (3.2%) who showed high academic performance and at the same time depicted negative behavioral attitudes. Majority of those
respondents with negative behavioral attitudes had low academic performance (16.6%) when compared to those with high and average academic performance (9.4%). The results in Table 4.18 were compared with the results in Table 4.19.

### Table 4.19 Descriptive Analysis of the Academic Performance and Behavior

<table>
<thead>
<tr>
<th>Mean grade</th>
<th>Total Behavioral attitudes</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Positive</td>
<td>Negative</td>
</tr>
<tr>
<td>A</td>
<td>52(16.9%)</td>
<td>3(1.0%)</td>
</tr>
<tr>
<td>B</td>
<td>81(26.3%)</td>
<td>9(2.9%)</td>
</tr>
<tr>
<td>C</td>
<td>52(16.9%)</td>
<td>18(5.8%)</td>
</tr>
<tr>
<td>D</td>
<td>43(14.0%)</td>
<td>50(16.2%)</td>
</tr>
<tr>
<td>Total</td>
<td>228(74.0%)</td>
<td>80(26.0%)</td>
</tr>
</tbody>
</table>

The number of the respondents with grades A and B who were considered as high performers and had positive behavioral attitudes was the highest (43.2%) in this category. On the other hand, those with grades C and D which were considered as average and low performers and had negative behavioral attitudes were found to be more in their category (22%). The respondents who showed high performance and had negative behavioral attitudes were few (12%).

### 4.2 Hypotheses Testing

This section dealt with the inferential statistics where the hypotheses formulated in the study were tested to determine the statistical significance in each case. The statistical analysis procedures used include Chi-square, T-test for independent samples for the different hypotheses and Pearson’s product moment correlations on exploratory analysis. The significance level was set at $\alpha=0.05$ for each analysis. The first three hypotheses were analyzed to find if there was a relationship between the HIV status and the dependent variables self-concept, behavioral attitudes and academic performance. The last two hypotheses were
analyzed to find whether there were differences among the groups on HIV status and gender in terms of their self-concept, behavioral attitudes and academic performance.

4.2.1 The relationship between HIV Status and the Self-concept

**H₀₁:** There is no relationship between the HIV status and behavioral attitudes of the pupils. To test this hypothesis a chi-square test was done. The results are presented in Table 4.20.

<table>
<thead>
<tr>
<th>HIV status</th>
<th>Total self-concept</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Positive</td>
<td>Negative</td>
</tr>
<tr>
<td>Negative</td>
<td>152</td>
<td>2</td>
</tr>
<tr>
<td>Expected</td>
<td>138</td>
<td>16</td>
</tr>
<tr>
<td>Positive</td>
<td>124</td>
<td>30</td>
</tr>
<tr>
<td>Expected</td>
<td>138</td>
<td>16</td>
</tr>
<tr>
<td>Total</td>
<td>276</td>
<td>32</td>
</tr>
<tr>
<td>Expected</td>
<td>276</td>
<td>32</td>
</tr>
<tr>
<td>Pearson chi-square value</td>
<td>27.341</td>
<td></td>
</tr>
<tr>
<td>df</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Asymp.sig (2 sided)</td>
<td>0.00</td>
<td></td>
</tr>
</tbody>
</table>

According to Table 4.20, the results showed that there was a statistical significance between the variables ($\chi^2=27.3$, df=1, p=0.00, p<0.05) Therefore the null hypothesis that there is no relationship between HIV status and the self-concept was rejected in favour of the alternative; There is a relationship between the HIV status and the self-concept of the participants under study such that those who are HIV positive have a relatively lower self concept than their counterparts who are HIV negative.
4.2.2 The relationship between HIV Status and Behavioral attitudes

Ho₂: There is no relationship between the HIV status and behavioral attitudes of the pupils. To test this hypothesis a chi-square test was done and the results presented as shown in Table 4.21

Table 4.21 Chi-Square test for HIV Status and Behavioral Attitudes

<table>
<thead>
<tr>
<th>HIV status</th>
<th>Behavioral attitudes</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Positive</td>
<td>Negative</td>
</tr>
<tr>
<td>Negative</td>
<td>Observed</td>
<td>150</td>
</tr>
<tr>
<td>Expected</td>
<td>Value</td>
<td>114</td>
</tr>
<tr>
<td>Positive</td>
<td>Observed</td>
<td>78</td>
</tr>
<tr>
<td>Expected</td>
<td>Value</td>
<td>114</td>
</tr>
<tr>
<td>Total</td>
<td>Observed</td>
<td>228</td>
</tr>
<tr>
<td>Expected</td>
<td>Value</td>
<td>228</td>
</tr>
<tr>
<td>Pearson chi-square value</td>
<td>87.537</td>
<td></td>
</tr>
<tr>
<td>df</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Asymp. sig (2 sided)</td>
<td>0.000</td>
<td></td>
</tr>
</tbody>
</table>

From Table 4.21, again like in the case of self-concept, the computed chi-square value for behavioral attitudes and the HIV status was less than the set level of significance ($\chi^2=87.53$, df=1, p=0.00, p<0.05). These results indicate that there is a relationship between the HIV status and the behavioral attitudes hence the null hypothesis that there is no relationship between the HIV status and the behavioral attitudes was rejected in favor of the alternative. The HIV positive pupils had more negative behavioral attitudes than the HIV negative pupils.

4.2.3 The relationship between HIV Status and Academic Performance

Ho₃: There is no relationship between the HIV status and academic performance of the pupils.

To test the hypothesis a chi-square test was done. The results were presented in Table 4.22 on the two variables.
Table 4.22 Chi-Square test for HIV Status and Academic Performance

<table>
<thead>
<tr>
<th>HIV status</th>
<th>Academic performance level</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>H.P</td>
<td>A.P</td>
</tr>
<tr>
<td>Negative</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observed</td>
<td>113</td>
<td>31</td>
</tr>
<tr>
<td>Expected</td>
<td>71.5</td>
<td>35.5</td>
</tr>
<tr>
<td>Positive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observed</td>
<td>30</td>
<td>40</td>
</tr>
<tr>
<td>Expected</td>
<td>71.5</td>
<td>35.5</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observed</td>
<td>143</td>
<td>71</td>
</tr>
<tr>
<td>Expected</td>
<td>143.0</td>
<td>71.0</td>
</tr>
</tbody>
</table>

Pearson chi-square: 107.571

df: 2

Asymp.sig. (2 sided): 0.00

H.P=High Performance, A.P=Average Performance, L.P=Low Performance

The chi-square value for the HIV status and the academic performance was 107.57 with the computed probability value being less than the set level of significance ($\chi^2=107.57$, df=2, p=0.00, p<0.05). The results indicated that there was a very strong statistical significance between the two variables and therefore, the null hypothesis that there is no relationship between HIV status and academic performance was rejected in favour of the alternative hypothesis. There is a strong relationship between the HIV status and academic performance in that HIV positive pupils showed lower marks in academic performance than the HIV negative pupils.
4.2.4 The Differences in the Self-concept, Behavioral Attitudes and Academic Performance due to the HIV Status.

**H04:** There are no differences in the self-concept, behavioral attitudes and academic performance due to the HIV status between HIV infected and HIV uninfected pupils. This hypothesis was tested using the T-test for independent samples to find out if there were differences between the self-concept, behavioral attitudes and academic performance. The results were presented in three tables, Table 4.23, Table 4.24, and Table 4.25.

**Table 4.23 t-test for Independent Samples on Differences in Self-concept**

<table>
<thead>
<tr>
<th>Equal variances assumed</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.194</td>
<td>306</td>
<td>.00</td>
<td>8.630</td>
<td></td>
</tr>
</tbody>
</table>

p=0.05

The differences in self-concept were highly significant between the groups (t=6.194, df=306, p=0.00, p<0.05. The mean of the HIV positive respondents was 65.85 while that of the HIV negative was 74.48 with a mean difference of 8.6. The HIV negative respondents showed higher mean value in self-concept than their HIV positive peers. This implies that majority of the HIV negative respondents had a positive self-concept compared to their HIV positive counterparts. Therefore there is a difference between the self-concept in the HIV positive pupils and the HIV negative pupils with the majority of the HIV positive
pupils having negative self-concept and majority of the HIV negative having positive self-concept.

**Table 4.24  t.test for Independent Samples on Differences in Behavioral Attitudes**

<table>
<thead>
<tr>
<th></th>
<th>t</th>
<th>df</th>
<th>Sig.</th>
<th>M.D</th>
<th>B.A mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>HIV(+)</td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>-13.84</td>
<td>306</td>
<td>.000</td>
<td>-28.44</td>
<td>47.32 (\text{HIV(-)})</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td>-13.84</td>
<td>255.21</td>
<td>.000</td>
<td>-28.44</td>
<td>47.32 (\text{HIV(-)})</td>
</tr>
</tbody>
</table>

M.D=Mean Differences, B.A=Behavioral Attitudes, Sig. (2-tailed)

The results in table 4.24 shows that there was a significant mean difference between the two groups \((t=-13.8, \text{df}=306, p=0.00, p<0.05)\). The HIV positive respondents had a mean of 47.32 while the HIV negative respondents had a mean of 18.89. The higher the value in behavioral attitudes the more the behavioral problems the pupil displayed hence a high mean value. It means that the HIV positive respondents had more behavioral problems compared to the HIV negative respondents. This implied that there was a significant difference in behavior between the HIV positive pupils and the HIV negative pupils.

**Table 4.25  t.test for Independent Samples on Differences in Academic Performance**

<table>
<thead>
<tr>
<th></th>
<th>t</th>
<th>df</th>
<th>Sig.</th>
<th>M.D</th>
<th>A.P mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>HIV(+)</td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>14.37</td>
<td>306</td>
<td>.00</td>
<td>81.70</td>
<td>256.68 (\text{HIV(-)})</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td>14.37</td>
<td>305.79</td>
<td>.00</td>
<td>81.70</td>
<td>256.68 (\text{HIV(-)})</td>
</tr>
</tbody>
</table>

M.D=Mean Differences, A.P=Academic Performance, Sig (2-tailed)
The results in Table 4.25 show that there was a significant difference in the Academic performance between the two groups (t=14.37, df=306, p=0.00, p<0.05). The mean difference was quite high with the HIV negative group having a mean mark of 338.38. This was an indicator that most of the HIV negative pupils performed relatively higher than the average mark. The HIV positive pupils achieved a mean mark of 256.68, an indicator that majority of the pupils got below average marks in this particular category. Therefore, there was a difference in academic performance between those pupils who were HIV positive and those who were HIV negative.

4.2.5 Sex Differences in Self-concept and Behavioral Attitudes among the Pupils.

H₀₅: There are no sex differences in self-concept and behavioral attitudes among the pupils. Test analysis was done to determine if there were differences in both the self-concept and behavioral attitudes between the boys and girls.

<table>
<thead>
<tr>
<th>Equal variances assumed</th>
<th>t</th>
<th>df</th>
<th>Sig.</th>
<th>M.D</th>
<th>S.C Means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-1.45</td>
<td>306</td>
<td>0.15</td>
<td>-2.13</td>
<td>69.12</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td>-1.45</td>
<td>288.18</td>
<td>0.15</td>
<td>-2.13</td>
<td>69.12</td>
</tr>
</tbody>
</table>

M.D=Mean Differences, S.C=Self-concept, Sig. (2-tailed)

It was noted that there was no statistical significant difference in self-concept between the two groups (t=-1.45, df=306, p=0.15, p>0.05). The boys had a mean of 69.12 in self-concept while the girls had a mean of 71.25. The results indicated that gender did not have any significant relationship with the pupils’ self-concept.
The results obtained in this case did not consider the HIV status of the respondents. Therefore there are no significant differences in self-concept between the boys and the girls.

Table 4. 27  
\textbf{t.test for Independent Samples on Differences in Behavioral Attitudes}

<table>
<thead>
<tr>
<th>Equal variances assumed</th>
<th>Boys</th>
<th>Girls</th>
</tr>
</thead>
<tbody>
<tr>
<td>t</td>
<td>-1.41</td>
<td>306</td>
</tr>
<tr>
<td>df</td>
<td>0.16</td>
<td></td>
</tr>
<tr>
<td>M.D</td>
<td>-3.67</td>
<td></td>
</tr>
<tr>
<td>B.A means</td>
<td>31.31</td>
<td>34.98</td>
</tr>
</tbody>
</table>

Equal variances not assumed

| t                       | -1.41| 305.20|
| df                      | 0.16 |       |
| M.D                     | -3.67|       |
| B.A means               | 31.31| 34.98 |

M.D=Mean Differences, B.A=Behavioral Attitudes, Sig. (2-tailed)

The results showed that there was no significant difference ($t=-1.41$, df=306, $p=0.16$, $p>0.05$) in behavioral attitudes between the two groups. The boys had a mean of 31.31 in their behavioral attitudes while the girls had a mean of 34.98 in the same variable. This implied that sex is not related to the pupils’ behavior hence there is no significant difference between the behavioral attitudes of the boys and the girls. The null hypothesis, there are no sex differences in self-concept and behavioral attitudes among the pupils was accepted.

4.2.6  \textbf{Exploratory Analysis}

The results obtained in the study brought forth some interesting findings which the researcher chose to include in this study. They included inter-correlations between the self-concept, behavioral attitudes, academic performance, various components of the behavioral attitudes and the domains of the self-concept.
Table 4.28 Correlations on Self-concept, Behavioral Attitudes and Academic Performance.

<table>
<thead>
<tr>
<th></th>
<th>TS</th>
<th>MM</th>
<th>TBA</th>
<th>TSN</th>
<th>MMN</th>
<th>TBAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>TS</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MM</td>
<td>0.061</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TBA</td>
<td>-0.335(*)</td>
<td>-0.231(*)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TSN</td>
<td>0.109</td>
<td>0.038</td>
<td>-0.025</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MMN</td>
<td>0.000</td>
<td>-0.058</td>
<td>-0.052</td>
<td>0.186</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>TBAN</td>
<td>-0.013</td>
<td>0.090</td>
<td>0.052</td>
<td>-0.105</td>
<td>-0.409(*)</td>
<td>1</td>
</tr>
</tbody>
</table>

* Correlation is significant at the 0.05 level (2-tailed).

TS (Total self-concept for HIV Positive), MM (Mean mark for HIV positive), TBA (Total behavioral Attitudes for HIV Positive), TSN (Total self-concept for HIV Negative), MMN (Mean mark for HIV Negative), TBAN (Total behavioral Attitudes for HIV Negative).

The correlations done on the dependent variables revealed that there was a significant negative correlation between the self-concept and the behavioral attitudes of the HIV positive (r = -0.335, p=0.00, p<0.05). As the self-concept values among the HIV positive population increase, the behavioral attitudes values decrease. This implies that those respondents with positive self-concept also have less behavioral problems. The high values of self-concept mean positive self-concept while low values of behavioral attitudes mean less behavioral maladjustments. On the Academic performance and behavioral attitudes, there was a significant but negative correlation between the variables (r = -0.231, p=0.04 p<0.05). These results indicated that those HIV positive respondents showing high performance had low behavioral attitudes values. It was interpreted that high performers had less behavioral attitudes. There was no significant
relationship between the self-concept and the academic performance among the HIV positive group \((r = 0.061, p = 0.45, p > 0.05)\).

The HIV negative group showed relatively similar results in that, there was a significant and negative correlation between the academic performance and behavioral attitudes \((r = -0.409, p = 0.00, p < 0.05)\). This indicated that those who performed well also had less behavioral problems as it was the case in HIV positive group. Surprisingly, there was no significant correlation between the self-concept and behavioral attitudes among the HIV negative respondents with a correlation coefficient of \(r = -0.105, p = 0.197, p > 0.05\). However, for the self-concept and academic performance in this group, there was a significant positive correlation \((r = 0.186, p = 0.021, p < 0.05)\). This indicated that for high values of the self-concept (positive) there was an increase in academic performance. The results from the correlations tally with the earlier research findings.

Table 4.29 Correlations on Academic Performance and Academic Self-concept

<table>
<thead>
<tr>
<th></th>
<th>Pass/exams(ASC₁)</th>
<th>Hardworking(ASC₂)</th>
<th>Memory(ASC₃)</th>
<th>MM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pass exams(ASC₁)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hardworking(ASC₂)</td>
<td>0.604(*)</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Memory(ASC₃)</td>
<td>0.700(*)</td>
<td>0.449(*)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>MM</td>
<td>0.557(*)</td>
<td>0.291(*)</td>
<td>0.398(*)</td>
<td>1</td>
</tr>
</tbody>
</table>

* Correlation is significant at the 0.05 level (2-tailed).
ASC=Academic Self-concept (How respondents perceive their ability to Pass Exams, Memorize and work hard in school), MM=Mean mark of the Academic performance.
The Table 4.29 showed that the academic performance correlated strongly with the academic self-concept. All the three domains of academic self-concept had a positive correlation greater than 0.291 (ASC$_1$ $r=0.557$, ASC$_2$ $r=0.291$, ASC$_3$ $r=0.398$, $p=0.00$, $p<0.05$). These results in the Table 4.24 agree with results obtained in earlier researches which found that academic self-concept positively correlates with the academic performance. This research confirmed these findings. Further correlations were done to find out whether there was a significant relationship between some classroom behavioral attitudes and the academic performance among the HIV negative group. This was presented in Table 4.30.

**Table 4.30  Correlations between Academic Performance and Classroom Behavioral Attitudes**

<table>
<thead>
<tr>
<th></th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
<th>Q5</th>
<th>Q6</th>
<th>MM</th>
<th>Q7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q2</td>
<td>0.671</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q3</td>
<td>0.652</td>
<td>0.786</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q4</td>
<td>0.582</td>
<td>0.499</td>
<td>0.548</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q5</td>
<td>0.669</td>
<td>0.673</td>
<td>0.823</td>
<td>0.579</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q6</td>
<td>0.582</td>
<td>0.707</td>
<td>0.804</td>
<td>0.479</td>
<td>0.747</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MM</td>
<td>-0.601</td>
<td>-0.662</td>
<td>-0.794</td>
<td>-0.441</td>
<td>-0.694</td>
<td>-0.692</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Q7</td>
<td>0.588</td>
<td>0.754</td>
<td>0.667</td>
<td>0.497</td>
<td>0.620</td>
<td>0.683</td>
<td>-0.585</td>
<td>1</td>
</tr>
</tbody>
</table>

Correlation is significant at the 0.05 level (2-tailed).  
Q1=Constantly Fidgeting, Q2=Hums and makes other odd noises, Q3=Poor coordination, Q4=Inattentive or easily distracted, Q5=Day dreams, MM=Mean Mark, Q7=School Attendance.
The results in Table 4.30 showed that there was a significant negative correlation between the Academic performance and the classroom behavioral attitudes among the boys and girls under this study. These results indicate that as the occurrence of the negative behavioral attitudes increase the academic performance decreases (Q1; r=-0.601, Q2; r=-0.662, Q3; r=-0.794, Q4; r=-0.441, Q5; r=-0.694, Q6; r=-0.692, Q7; r=-0.585, p=0.00, p<0.05) which corresponds positively with the results obtained in this study on the relationship between the academic performance and the total behavioral attitude. High values of the behavioral attitudes meant more negative behavioral attitudes hence the correlation showed a significant negative relationship.
CHAPTER FIVE
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction
This chapter presents the summary of the study findings, the implications of the findings, conclusion, recommendations and suggestions for further research.

5.1 Summary of the Findings
Drawing from the analysis, it can be said that there is a relationship between the self-concept and HIV status. Both the descriptive and the inferential analysis show significant but little positive relationship. Although, there were mean differences in self-concept between the HIV positive and the HIV negative pupils, they were really minimal. In the Chi-square results there was a very significant relationship. This is statistically justifiable since Chi-square is a non-parametric test. However, self-concept was found to have a strong correlation with both the behavioral attitudes and academic performance which were also statistically significant. Most of those pupils with positive self-concept were found to have positive behavioral attitudes. Likewise, majority of the pupils with positive self-concept showed high academic performance.

The study also showed that there was a strong relationship between behavioral attitudes and HIV status. The relationship was statistically positive and significant meaning that majority of the HIV positive pupils had more negative behavioral attitudes compared to their HIV negative peers. The correlations between the HIV positive group and the HIV negative group were weaker compared to the correlations within the two groups among the three variables. For instance, the correlations of the behavioral attitudes between the
HIV positive pupils and the HIV negative pupils were negative and fairly weaker as compared to the correlations of the behavioral attitudes and self-concept among the HIV positive pupils.

Further analysis of the results showed that there was a relationship between the academic performance and HIV status. A positive and significant correlation was reported with most of the HIV negative pupils performing better than those who are HIV positive. The chi-square test showed a strong and a statistically significant relationship between the academic performance and HIV status. This could imply that academic performance among the population under study to some degree is influenced by HIV status. The results also indicated that HIV status negatively contributed on the pre-adolescents’ self-concept, behavioral attitudes and the academic performance.

On gender, there were no significant differences on self-concept and behavioral attitudes among both the HIV positive and the HIV negative pupils. This implied that sex difference is of no consequence as far as self-concept and behavioral attitudes. Exploratory study done on the data showed that more pupils staying in children’s home had a problem with their self-concept than it was the case with those staying with their parents or guardians. It was further noted that the number of pupils who were staying with either their parents or guardians were more than those who were staying in children’s’ homes. Most of the pupils had positive behavior; however, more children staying in the children homes depicted negative behavioral attitudes than the children staying with their parents or guardians. It was clear that the children staying with their
parents or guardians performed much better in their academics it was clear that the children staying with their parents or guardians performed much better than the children staying in the children homes.

5.2 Implications of the Findings
The results obtained bring out important issues in terms of the relationship between HIV status and psychological, behavioral and academic components of HIV positive pupil. The implications of research findings have been discussed in relation to the response of stakeholders who interact with these pupils.

5.2.1 Implication of the Findings to the Parents, Guardians and Caretakers
From the findings, it is clear that HIV status has strong influence on behavioral attitudes and academic performance. This concurs with Swanston et al, 2000 who established that when a child suffers from a terminal disease he or she develops behavioral problems. According to Bose et al, 1994 the affected children present with irritable mood, poor concentration, disruptive behavior and school failure. The research findings have also established that presence of negative behaviors corresponds to low self-concept. Therefore the parents, relatives, guardians, social workers and caretakers living with the pupils in family set-ups and children homes should be aware of what could be happening in the pupils’ lives and positively help them to adjust and accept who they are. This knowledge is very essential in that they can make a deliberate effort to motivate, encourage and give hope to these children. Given that the pupils are at a stage of discovering some unpleasant facts about themselves, it is evident that their behavioral formation is likely to be affected. These stakeholders have a role to play in formation of
social behavioral attitudes of these pupils. They need to explain to the pupils the developmental changes taking place in their bodies so that the pupils may know changes due to sickness and changes due to growth process.

5.2.2 Implication of the Findings to the Teachers and School Administrators
As discussed earlier HIV status correlated positively with academic performance. Similarly, negative behavioral attitudes corresponded with low academic performance. These findings agree with earlier research findings by Hamra et al, 2005 which confirm that, the patient’s status affects their ability to perform tasks. In this case the academic tasks were negatively affected by the HIV status. The behavioral attitudes linked to Classroom behavior like, constantly fidgeting on the seat, poor coordination, humming and making other odd noises, being restless or overactive, impulsive, Inattentive, failure to finish things he or she starts, short attention span, daydreaming and being overly sensitive were commonly found among the HIV positive pupils. This outcome confirms the results of this study that indicate poor academic performance positively correlates with negative behavioral attitudes. Therefore, the educators will be able to help the HIV infected pupils once they acknowledge the relationship between behavior and academic performance. They should be able to understand and help them to adjust to their HIV status. When the teachers notice maladaptive behaviors among the pupils, they could use recommended professional behavior modification methods. Also form positive behaviors and exploit full academic potential despite their HIV status by appraising positive behavior and showing confidence in the HIV positive pupils.
5.2.3 Implication of the Findings to the Educational Policy Makers
As has already been established in the results of the study, HIV status has a strong influence on academic performance of the HIV positive pupils. One of the reasons why the pupils could be abnormally affected is the HIV/Aids stigma which is prevalent in our Kenyan society. When the pupils realize that there is ‘something unpleasant’ about them according to others’ view from whom they expect acceptance, they feel unwanted and hence they are bound to react to their feelings. This came out through their behavior and performance of tasks, in this case academic performance.

Therefore, the Education policy makers are in a position to use the study results to follow up on effectiveness of implementations of the National policy on orphans and vulnerable children in schools. In-service training for teachers is required on handling the special needs of the HIV positive pupils who are increasing day by day in both public (government) and private schools. As suggested in the National policy on orphans and vulnerable children, this group of children is categorized as vulnerable and therefore it is required by law that they be given special consideration to help them cope with the challenges. The considerations include right to basic care and education.

5.3 Conclusions
The research findings have shown that HIV status has a significant correlation with self-concept. The HIV positive pupils had a lower mean in self-concept compared to the HIV negative pupils, therefore the mean difference was found to be significant. These findings agree with previous studies that reported significant differences in self-concept between the early adolescents with medical problems and the comparison groups especially if the
medical problem is associated with psychological pain. Adams & Weaver (1986) studied the relationship between non-organic pain and self-concept among 10 to 16 year old pediatric outpatients. These children scored lower on a global self-concept measure than a group of children with physically based chronic disease.

The findings also indicated that HIV status has a strong and significant correlation with behavioral attitudes. The HIV positive pupils tended to show more negative behavioral attitudes than the HIV negative pupils. These results support previous studies that have reported that the sickly child gets distressed. As a result he or she displays warning signs through behavioral attitudes which could be problems at school or in social relationships, low self-esteem, manifested self-blame, helplessness or hopelessness, denial, oppositional behavior, suicide, eating disorders, conduct disorders, depression, anxiety and in extreme cases poor compliance with treatment (Swanston, H., Williams, K., & Nunn, K., 2000).

Moreover, the findings also showed that HIV status has a strong and significant correlation with academic performance. The HIV negative pupils performed better in the academics than the HIV positive pupils. This finding support earlier studies that claim that the physical poor health affects adversely the performance of tasks in which case academic tasks could be included. Louw, Edward & Orr (2001) noted that the HIV infected learner is in most cases physically weaker and smaller than his or her peers and siblings; hence the body image has an influence on the learner’s self-concept throughout the development process which consequently affects the academic performance.
The results continued to depict that the HIV positive status related more negatively on the behavioral attitudes. This finding concurred with the previous studies as shown earlier. It also came out clearly that HIV status related strongly with how the HIV positive pupils perform tasks in their class work. The condition related least to the pupils’ self-concept among the three variables under study.

There was no significant difference in self-concept, behavioral attitudes and academic performance based on gender. The mean differences between the male pupils’ self-concept and the female pupils’ self-concept were insignificant. Similarly, the means of the male pupils’ behavioral attitudes and the academic performance were not significantly different from their female peers.

5.4 Recommendations
Based on the results obtained the following recommendations were made;

i). Greater emphasis need to be put on professional counseling in both private and public primary schools since it has emerged that the number of the HIV infected children engaged in formal learning is increasing in these schools. In the past, organized professional counseling services have been provided to children with visible physical needs like the blind learners, the deaf learners, physically disabled learners and more of such like. The HIV positive learners are slightly different since they also suffer HIV associated stigma apart from the pain due to numerous infections characteristic of HIV/Aids. The Aids condition involves the common diseases which to most of the people living with these pupils may just seem to be passing. To the pupil the frequent sickness which in most cases is not openly defined cause a lot of concern for it makes them feel
different from the others. Therefore, once these children have been identified in school there is need to help them overcome the psychological challenges and as a result their behavioral shortcomings. This research has shown that there is a strong positive and significant correlation between a positive behavioral attitudes and a high academic performance.

ii). The ministry of education through the recruiting agencies should include professional counseling skills as a requirement for the primary school teachers. This may help the teachers to deal with the increasing numbers of HIV positive children in formal learning cope with the psychological and behavioral challenges. According to the research results, if they overcome the two related challenges they will be able to realize their full academic potential. In the schools where this study was done there was only one or two ‘teacher counselors’ who were in charge of the pupils’ welfare. Ninety nine percent (99%) of these teachers were not professional counselors at least from the researcher’s investigation. This may lead to negligence of the pupils’ special needs and consequently low performance in their academic work.

iii). The research results have also indicated that behavioral attitudes of the HIV positive pupils have such a strong correlation with both the self-concept and academic performance. This finding may further indicate that any negative change in behavior if noted in good time and appropriate help given to the infected pupil, may help him or her adjust relatively well to the HIV status. It is therefore necessary for school teachers to regularly carry out behavioral assessment. Any deviation from the normal may be considered as a warning. This will then prompt the teacher counselor to take action especially in cases where the pupil’s status has been concealed from the teacher.
5.5 Suggestions for Further Research

The following suggestions were made for consideration in future research:

i). The correlation between HIV status and behavioral attitudes has been found to be strong and significant in this study. Further research could be done to find out whether there is cause effect relationship between the two variables.

ii). This research concentrated on the primary school pupils. Further research could also be done on influence of HIV status on adolescents’ self-concept, behavioral attitudes and academic performance.

iii). In this study it was found that some respondents who were in their late pre-adolescents’ age were still in middle primary school. This affected those who were HIV positive compared to those who were HIV negative. Further research could be done on the relationship between the HIV status and upward class progress.

iv). In this study the respondents under study were not experiencing Aids condition at the time of study. Only those attending school at the time could give feedback on the self-concept scores. Further research could be done on the influence of HIV status on the pupil’s’ self-concept and behavioral attitudes who are already exposed to the Aids condition.

v). This particular study showed that there is no significant gender difference among the variables under study among the HIV positive and the HIV negative pupils. An area of interest for further research could be to study if there are gender differences in the self-concept and behavioral attitudes among the older HIV infected population.

vi). Most of the research done in Kenya on children that is HIV related has dealt with the HIV orphaned children. Further research could be carried out on the influence of HIV
status on self-concept, behavioral attitudes and academic performance among the HIV infected pupils in the rural areas.
REFERENCES


Integrating HIV/AIDS, Sexual and reproductive health Conference, Kenyatta University, Nairobi, April 2007.


APPENDICES

Research Instruments
Three research instruments were used in the study, the modified semantic differential scale, Conner’s teacher rating scale and the Academic performance form.

APPENDIX I

Modified Semantic Differential Scale.
This instrument was used to measure the self-concept of the pre-adolescents.

Section A: Illustration.
The items below are made up of two adjectives, one which is the opposite of the other. These adjectives have been used before by students like you to describe themselves. The two adjectives are separated by a line divided by five points as below.

Tall                      Short
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

You are required to judge your feelings towards yourself. Examine carefully the two adjectives (tall, short). Think of where you would place yourself on that line separating the two adjectives. Once you decide, place a cross mark (X) on that point. For example, if you feel the adjective tall describes you very well then place a mark next to this adjective as shown below.

X
Tall

If tall describes you but not very well, then mark next as shown below.

X
Tall                      Short
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If you feel you are in between the two adjectives, then mark at the middle as shown below;

Tall  X  Short

If short describes you very well, place a mark next to the adjective as shown below;

Tall  X  Short

If short does not describe you very well, indicate as shown below;

X

Tall  X  Short

If you have fully understood how to respond, proceed to section B. In this section you will find 18 items similar to the one illustrated above. They are, however pairs of different adjectives. Think carefully over each item and rate yourself by putting a cross mark (X) on the point on the line which describes you best; indicate by X. Do this for the 18 items in section B. Be as honest and truthful as you can about your feelings towards yourself. The answers will not be shown to anyone and remember, this is not a test so there is no right or wrong answer.
Section B

CLASS…… AGE……CODE No……

1. Beautiful/Handsome

2. Healthy

3. Kind

4. Honest

5. Obedient

6. Fearless

7. Sympathetic

8. Ugly

Unhealthy

Weak

Unkind

Dishonest

Disobedient

Fearful

Unsympathetic
Joyful

Sorrowful

9. [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

Pass exams well

Do not pass exam well

10. [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

Hard working

at school

Lazy at school

11. [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

Good memory

Poor memory

12. [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

Friendly

Unfriendly

13. [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

Co-operative

Unco-operative

14. [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

Loved by friends

Not loved by friends

15. [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

Helpful at Home

Not helpful at home

16. [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

Loved at home

Not loved at Home

17. [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]
Lonely at Home

Not lonely at home

18.
APPENDIX II

Conner’s Teacher Rating Scale
Listed below are the descriptive terms of behavior. These terms have been widely used to assess pupils’ behavior.

Guidelines
Read the item carefully and decide how much you think your pupil has been bothered by this problem during the past month. NOT AT ALL, JUST A LITTLE, PRETTY MUCH, or VERY MUCH. Indicate your answer by placing a cross (X) in the appropriate column to the right of each item. You are required to be as honest as possible. Place the check mark in the column which best describes this child.

CLASS…… AGE…… CODE No……

AREA OF STAY: (a) Children’s Home (b) Family Home (Tick Appropriately)

<table>
<thead>
<tr>
<th>Observation</th>
<th>Degree of Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not at all</td>
</tr>
<tr>
<td>CLASSROOM BEHAVIOR</td>
<td></td>
</tr>
<tr>
<td>1. Constantly Fidgeting</td>
<td></td>
</tr>
<tr>
<td>2. Hums and makes other odd noises</td>
<td></td>
</tr>
<tr>
<td>3. Demands must be met immediately-easily frustrated</td>
<td></td>
</tr>
<tr>
<td>4. Coordination poor</td>
<td></td>
</tr>
<tr>
<td>5. Restless or overactive</td>
<td></td>
</tr>
<tr>
<td>6. Excitable, impulsive</td>
<td></td>
</tr>
<tr>
<td>7. Inattentive, easily distracted</td>
<td></td>
</tr>
<tr>
<td>8. Fails to finish things he starts-short attention span</td>
<td></td>
</tr>
<tr>
<td>9. Overly sensitive</td>
<td></td>
</tr>
<tr>
<td>10. Overly serious or sad</td>
<td></td>
</tr>
<tr>
<td>11. Daydreams</td>
<td></td>
</tr>
<tr>
<td>12. Sullen or sulky</td>
<td></td>
</tr>
<tr>
<td>13. Cries often and easily</td>
<td></td>
</tr>
<tr>
<td>14. Disturbs other children</td>
<td></td>
</tr>
<tr>
<td>15. Quarrelsome</td>
<td></td>
</tr>
<tr>
<td>16. Mood changes quickly and drastically</td>
<td></td>
</tr>
<tr>
<td>17. Acts “smart”</td>
<td></td>
</tr>
<tr>
<td>18. Destructive</td>
<td></td>
</tr>
<tr>
<td>19. Steals</td>
<td></td>
</tr>
<tr>
<td>20. Lies</td>
<td></td>
</tr>
</tbody>
</table>
21. Temper outbursts, explosive and unpredictable behavior

**GROUP PARTICIPATION**

22. Isolates him or herself from other children

23. Appears to be unaccepted by group

24. Appears to be easily led

25. No sense of fair play

26. Appears to lack leadership

27. Does not get along with opposite sex

28. Does not get along with same sex

29. Teases other children or interferes with their activities

**ATTITUDE TOWARD AUTHORITY**

30. Submissive

31. Defiant

32. Impulsive

33. Shy

34. Fearful

35. Excessive demands for teacher’s attention

36. Stubborn

37. Overly anxious to please

38. Uncooperative

39. School attendance problem
APPENDIX III

Academic Performance Form

Pupils’ code No:…………………………
Class:………
Gender: Male  □  Female  □

Pupils’ Age:  __________
Adm. No:  __________

Type of School: Public Primary School  □  Private Primary school  □

Respondents’ Category: High performance  □  Low Performance  □  Average  □

Average Mark: Mark for the last Three Terms

Grade:  __________

Source of information: School Records

With authority of School Head Teacher  □  Class Teacher/School counselor  □

Date:  ______________
APPENDIX IV

RESEARCH PERMIT

This is to certify that:
Prof/Dr/Mr/Mrs/Miss SUSAN MUMBUA
NDIYIO

of (Address) KENYATT A UNIVERSITY
P.O.BOX 43844 NAIROBI

has been permitted to conduct research in:
CHILDREN’S HOMES Location:
NAIROBI District,
NAIROBI Province,

on the topic:
SELF-CONCEPT, ACADEMIC
PERFORMANCE AND BEHAVIOURAL
EVALUATION OF HIV INFECTED
ORPHANS IN SELECTED CHILDREN
HOMES IN NAIROBI

for a period ending 30TH AUGUST 2009

Research Permit No. NGST/5/002/B/440
Date of issue 29.5.2009
Fee received SHS 1000.00

Applicant’s Signature

Secretary
National Council for Science and Technology
APPENDIX V

RESEARCH AUTHORIZATION BY NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY

NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY

Telegram: "SCINCETECH", Nairobi
Telephone: 254-020-261349, 2213102
254-020-310571, 2213123
Fax: 254-020-2213121, 318245, 318249
When replying quote:

NCS/125/002/R/440/6

Our Ref:
Ms. Susan Mumbua Ndivo
Kenyatta University
P. O. Box 43844
NAIROBI

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on, *Self-Concept, Academic Performance and Behavioural Evaluation of HIV Infected Orphans in Selected Children Homes in Nairobi*

I am pleased to inform you that you have been authorized to carry out research in Various Children’s Home in Nairobi for a period ending 30th August 2009.

You are advised to report to the Provincial Commissioner, the Provincial Director of Education Nairobi, the District Officer Kibera Division and the Heads of Children’s Homes you will visit before embarking on your research.

On completion of your research, you are expected to submit two copies of your research report/Thesis to this office.

[Signature]

PROF. S. A. ABDULRAZAK Ph.D, MBS
SECRETARY

Copy to:
The Provincial Commissioner
Nairobi

The Provincial Director of Education
Nairobi

The Directors
Children’s Homes
Kibera
Nairobi

The District Officer
Kibera Division
Nairobi

Date: 29th May 2009
APPENDIX VI
RESEARCH AUTHORIZATION BY THE MINISTRY OF HOME AFFAIRS; CHILDREN’S DEPARTMENT

MINISTRY OF GENDER, CHILDREN AND SOCIAL DEVELOPMENT

DEPARTMENT OF CHILDREN'S SERVICES
HEADQUARTERS
JOGO0 HOUSE 'A'
TAIFA ROAD
P.O. BOX 48205
NAIROBI

REF. NO. CS/ 6/12/179. 20th MAY, 2009.

A Children’s Home  D Children’s Home
B Children’s Home
C Children’s Home

RE: FIELD RESEARCH.

The bearer of this letter Susan Mumbua is a student at Kenyatta University pursuing a Masters degree in Education Psychology- Guidance and Counseling. As part of her course requirements she is expected to conduct a research on Self Concept Academic Performance and Behavioral evaluation among the HIV/AIDS infected children in selected Homes in Nairobi. The research is to be conducted for a period of two months beginning on 21st May, 2009.

In this regard, authority to conduct research in your institutions has been granted. You are requested to facilitate her work. She is expected to abide by the rules and policies governing the Department of Children Services.

S. KIRUL
FOR: DIRECTOR CHILDREN SERVICES

C.C
DCO- KIBERA.
Susan Mumbua
APPENDIX VII
RESEARCH AUTHORIZATION BY THE CITY COUNCIL OF NAIROBI

CITY EDUCATION DEPARTMENT

GL/NC/141 VOL III/86
23rd July, 2009

HEADTEACHERS:

R Primary School       W Primary School
S Primary School       X Primary School
T Primary School       Y Primary School
U Primary School       Z Primary School
V Primary School

RE: RESEARCH AUTHORIZATION

I write to certify that Susan Mumbua Ndivo is a student at Kenyatta University
pursuing Master degree in Education Psychology - Guidance and Counseling. As part of
her course requirements she is expected to conduct a research data on “Self Concept
Academic Performance and Behavioral evaluation among HIV/AIDS infecting
children” in schools named above.

Therefore you are requested to facilitate this activity for enable her complete her studies.

JACINTA A. CHARLES
Ag. DEPUTY CHIEF ADVISOR TO SCHOOLS
For: DIRECTOR OF CITY EDUCATION

cc. - M.E.O. - Nairobi West.
    - Nairobi East
    - Nairobi West