

**RELATIONSHIP BETWEEN STUDENTS' ACADEMIC SELF-CONCEPT AND  
ACADEMIC ACHIEVEMENT: A CASE OF PUBLIC SECONDARY SCHOOLS  
WITHIN NAKURU MUNICIPALITY, KENYA**

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**By**

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**A Research Project Report Submitted to the Department of Psychology, Counseling and  
Educational Foundations in Partial fulfillment of the Requirements for the Award of the  
Degree of Master of Education in Guidance and Counseling of Egerton University.**

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## DECLARATION

This research report is my original work and has not been previously presented for the award of a degree in any other university.

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## RECOMMENDATION

This research report has been submitted for examination with my approval as University Supervisor.

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## DEDICATION

To my husband, James and children: Grace, Beatrice, Samuel and Joseph.

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## ABSTRACT

The varied performance in national examinations has in most cases been attributed to factors such as teachers' laxity, students' cognitive and intellectual ability among other related factors. Little has been given to the fact that students' academic self-concept is likely to influence academic achievement. The purpose of this study was to investigate the extent of the relationship between academic self-concept and academic achievement among secondary school students within Nakuru Municipality. Correlational research design was used in this study. The target population was 1552 form four students in ten public secondary schools that had registered students for KCSE examinations for the last six years. The accessible population was 465 students from five sampled schools. A sample size of 219 participants was drawn through proportionate stratified, purposive and simple random sampling methods. Academic self-concept was the independent variable while academic achievement was the dependent variable. A self-report questionnaire was used to collect data on academic self-concept while end of term examination marks for five consecutive terms were used to determine the average academic achievement for each participant. The instruments were administered after piloting to determine their suitability, validity and reliability. The Cronbach's alpha reliability coefficient after piloting was 0.678. The questionnaire was revised to improve the reliability coefficient. Descriptive and inferential statistics were used to analyze the obtained data which included; Product-moment correlation coefficient, ANOVA, chi-square, and t-tests. The hypotheses were tested at  $\alpha = 0.05$ . The findings indicated a significant positive relationship between students' academic self-concept and academic achievement. The findings also indicated that parents, teachers, peers and personal motivation play a significant role in the development of academic self-concept and corresponding academic achievement of students. Students' academic self-concept and achievement were found to be independent of gender and school category. It was recommended that factors that may hinder development of high academic self-concept and high academic achievement be looked into.

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## LIST OF ABBREVIATIONS AND ACRONYMS

- FAWE:** Forum for African Women Educationist.
- KCSE:** Kenya Certificate of Secondary Education.
- KNEC:** Kenya National Examination Council.
- MOEST:** Ministry of Education, Science and Technology.
- UNICEF:** United Nation International Education Fund

# CHAPTER ONE: INTRODUCTION

## 1.1 Background of the Study

In Kenya, examinations have long been accepted as an important aspect of the educational system (Maundu, 1980; Eshiwani, 1984). It has been observed that certain schools consistently do better than others at KCSE examinations despite the fact that all schools follow the same syllabi for various examination papers offered (KNEC). Examinations judge students academic ability and they are a means for educational advancement and for employment purposes (Brenda, 1998). Thus, there has been much emphasis on good academic achievement among students in institutions of learning. Despite this emphasis and great effort put forth by teachers and school administrators to enforce good performance, many schools have continued to experience poor academic achievement (UNICEF, 1995). The researcher being a teacher has observed that to avert poor academic achievements most schools are engaged in extra tuition over the weekends and holidays and in some schools weak students are forced to repeat classes.

Academic achievement is a function of many cognitive and non-cognitive aspects of personality. For a long time in the history of education, academic achievement was conceived to be almost exclusively a function of intelligence and academic aptitude. But many students with Intelligence Quotient (I.Q) and academic aptitude considered sufficient for academic success have achieved at a level below that commensurate with their ability (Narang, 1981). Several studies have revealed that there is a positive relationship between academic self concept and measures of academic achievements (Purkey, 1970; Maritim, 1980; Marsh, 1990 b). According to Hamachek (1995), academic self-concept is more highly correlated with academic achievement than is general self-concept. Academic self-concept and academic achievement have an interactive and reciprocal relationship; each is mutually reinforcing to the extent that a positive or negative change in one facilitates a commensurate change in the other. The reciprocity of the relationship between academic achievement and academic self-concept is particularly noticeable at the secondary school years, when children are better able to interpret feedback from their academic performance (Engel, 1959). High academic self-concept students tend to approach school related tasks with confidence and success, and these tasks reinforce this confidence. The opposite pattern is likely to occur for children with low academic self concepts.

Maximizing self-concept of ability on academic subjects is recognized as a critical goal in itself and as a means to facilitate the attainment of other desirable outcomes in education; such as academic effort and persistence at tasks, attributions to failure or success, educational aspiration, academic achievement, course work selection, completion of high school and subsequent university attendance (Marsh, 1991; 1993). In a study of 432 standard seven primary school pupils, Maritim (1979) reported a significant difference in academic self-concept between boys and girls. Girls had a lower academic self-concept as compared to boys.

Although many studies have been done in this area especially in the West (Byrne, 1984 and Marsh, 1990 b), few studies have been done in relation to Kenya and non in relation to Nakuru municipality. There has been concern that students' academic performance within Nakuru municipality remained low compared to the maximum twelve points (MOEST, 2005). Only Nakuru high, Menengai and Nakuru Day managed to attain above average mean score (six points). Hence, research is necessary in this area to indicate the extent of the relationship between academic self-concept and academic achievement among students. The municipality has ten public schools which have registered students for the Kenya National Examination Council (K.C.S.E.) for the last six years. Table 1 gives a detailed K.C.S.E. results analysis for schools within the municipality for six years.

Table 1

KCSE Results Analysis for Public Secondary Schools within Nakuru Municipality

Category of schools and their names	2000	2001	2002	2003	2004	2005	Mean Score	No.of Candidates
<b>National schools</b>								
Nakuru High	7.74	7.89	7.72	7.58	7.24	7.56	7.72	343
<b>Provincial Schools</b>								
Nakuru day	6.23	6.68	6.43	6.33	6.46	6.09	6.37	116
Menengai	7.00	7.25	7.21	7.56	7.23	7.56	7.25	217
Langa Langa	5.84	5.78	6.46	6.05	5.86	5.96	6.00	146
Afraha	3.28	3.35	2.96	3.57	3.28	4.01	3.29	168
<b>District Schools</b>								
Kenyatta Secondary	5.14	4.44	4.62	5.37	5.41	4.69	4.95	105
Moi Secondary	2.40	4.67	5.08	4.48	4.75	4.90	4.38	134
Flamingo	4.79	5.30	4.88	5.40	4.99	5.94	5.22	149
Lanet Secondary	5.01	5.28	4.87	4.94	4.87	5.15	5.02	86
Nakuru West	4.33	4.49	3.88	3.75	4.16	4.63	4.21	88
<b>Mean score</b>	<b>5.18</b>	<b>5.51</b>	<b>5.41</b>	<b>5.50</b>	<b>5.43</b>	<b>5.65</b>	<b>5.43</b>	<b>155</b>

Source: Provincial Education Office, (2006)

The low performance in National examinations has in most cases been attributed to other factors such as teachers' laxity and student's cognitive or intellectual abilities among other related factors. Student's academic self-concept is highly correlated to academic achievement and it is against this background that the study attempts to investigate the extent of the relationship between academic self-concept and academic achievement in the municipality.

## **1.2 Statement of the Problem**

Examinations have been accepted as an important aspect of Kenya's educational system since they assess students' academic ability and are a means for educational advancement and employment. Despite the importance attached to academic achievement by the Kenyan society and the expectations to have many students joining universities this has not been the case. Hence, most students who sit for KCSE hardly get into institutions of higher learning because admission into universities is very competitive and require high grades. The government and education stakeholders have been trying to find out the causes of the poor academic achievement in secondary schools. Certain factors have been found to affect student's academic achievement which include aptitude, I.Q, motivation, and influence by significant others like parents, teachers and peers. Besides, it has also been shown that there is positive relationship between academic achievement and academic self-concept. However, the extent to which academic self-concept and academic achievement are related among the secondary school students in the municipality need to be established because no such study has been done in Nakuru.

## **1.3 Purpose of the Study**

The purpose of this study was to find out the relationship between academic self-concept and academic achievement among secondary school students in Nakuru municipality.

## **1.4 Objectives of the Study**

The following objectives were adopted:

- (i) To determine the extent of the relationship between academic self-concept and academic achievement among secondary school students in Nakuru municipality.

- (i) To determine whether gender differences exist in academic self concept among secondary school students in Nakuru municipality.
- (ii) To determine the differences in academic self-concept among students in different secondary school categories within Nakuru municipality
- (iii) To determine whether gender differences exist in academic achievement among secondary school students in Nakuru municipality.
- (iv) To determine the influence of external and internal factors on academic self-concept of students.

### 1.5 Hypotheses of the Study

To achieve the stated objectives of the study, the following hypotheses were tested at  $\alpha = 0.05$

- H<sub>01</sub>: There is no significant relationship between the students academic self-concept and academic achievement in secondary schools.
- H<sub>02</sub>: There is no significant difference between male and female students in academic self-concept in secondary schools.
- H<sub>03</sub>: There is no significant difference in academic self-concept among secondary school students in different school categories.
- H<sub>04</sub>: There is no significant gender difference between the mean score of male and female students in academic achievement.

### 1.6 Significance of the Study

This study was intended to contribute towards the expansion of empirical and objective data on student's academic self-concept and academic achievement for the improvement of theory and practice. This would help to develop greater insight into the influence of students' academic self-concept on academic achievement in secondary schools. The research was expected to make suggestions on how educators, policy makers and other stakeholders in the municipality and the country as a whole could enhance and facilitate the development of positive academic self-concept in students. The findings would enable education stakeholders to come up with appropriate strategies of curbing poor academic achievement. The findings could be used for pre-service and in-service teacher training. Teachers in training institutions should be taught education psychology which should include understanding of students' academic self-concept

and its relationship to academic achievement. The findings from the research would provide guidance and counseling issues to students on academic achievement and academic self-concept. Monitoring of students academic self-concept could therefore serve as a useful indicator of students' academic achievement.

### **1.7 Scope and limitations of the study**

The study covered public secondary schools in Nakuru municipality. Private and single sex schools were not included. Participants were form four male and female students who have been in the school since form three. The study sought to explain the extent to which academic self-concept and academic achievement are related and the factors that influence them which include external and internal factors.

Due to financial constraints, only students in secondary schools within Nakuru Municipality were studied. Generalizations therefore are confined to students of the secondary schools in the municipality. Some school administrators found the study to be sensitive and were suspicious and as such they took long to give the researcher the required data. Hence, the researcher visited the schools to explain the purpose of the study and to assure them that the data was to be treated with confidentiality. The findings would not be reported on the basis of individual schools but rather on the overall perceptions of respondents in the different schools. Some sampled schools had not computed the total marks for end term examinations so the researcher did the computations.

### **1.8 Assumptions of the Study**

It was assumed that the responses of the respondents were frank and a true expression of their feelings and self-understanding. It was also assumed that the academic achievement reflected true ability and that students had more or less the same characteristics and academic environment.



## 1.3 Definition of Terms

The operational definitions of the terms used in the study are as follows:

**Academic achievement:** Level of performance evaluated using examinations as a yardstick. In this study the form III and two form IV end of term examinations were used.

**Aptitude:** refers to potential ability in specific skills. This is the ability to learn a new skill or to do well in some future learning situations for example in the National KCSE examinations.

**Academic Self-Concept:** This is the general self-concept as applied to academic school subjects only. It is to be indicated by self-evaluation of ability in school subjects; Math, Eng, Kisw etc. This relates to how well we do in school or how well we learn.

**Examinations-trial:** A test of capacity and knowledge. This is reflected in end term examinations

**Gender:** Refers to differences between men and women in socio-cultural aspects rather than physical differences only. Consequently, the society assigns different roles to girls and boys.

**Intelligence:** The capacity to acquire and apply knowledge in problem solving.

**Intelligent Quotient (I.Q)** - is a measure of how much intelligence a person has by comparing his/her performance with standardized norms. This is how much children's measured intellectual abilities exceed or fall below those of average child age.

**Secondary School:** The four years of formal schooling after successful completion of primary Schooling in Kenya.

**Underachievers:** Students whose academic achievement falls well below their academic potentials as measured by I.Q tests.

## CHAPTER TWO: LITERATURE REVIEW

### 2.1 Introduction

This chapter includes a review of the available literature on academic self-concept and academic achievement. It also addresses the factors that influence academic self-concept and academic achievement, which include; teachers, parents, peers, personal motivation and gender. Finally, the conceptual framework of the study is explained.

### 2.2 Academic Self-concept and Academic Achievement of Students

Academic environment is becoming increasingly stressful for students. The society's demand for higher education has created a highly competitive academic environment. Students are pressurized to do well academically to ensure college admission (Girdano, 1990). Thus, the development of a positive academic self-concept plays an important role in student's success in school. According to Beach (1994), a favorable attitude towards learning is related to success in school and a positive student's academic self-concept. The students' academic self-concept is the most important single factor that influences academic performance more than intelligence, aptitude or difficulty of the material to be learnt (Staines, 1958).

Shavel and Bolus (1982), have proposed that during the school years, a child's self-concept becomes organized along both academic and non-academic lines. The academic self-concept is based on how well the student performs in the various academic areas. They suggested that self concept evolves through constant self-evaluation in different situations. Hence, children and adolescence compare their performance with their own standards and with the performance of peers. Students with higher academic self-concept are likely to be successful in school (Purkey, 1970). A more positive academic self-concept is related to more favourable attitude towards school Metcalfe (1981), and more positive behaviour in the classroom (Reynold, 1980)

Shavelson, Hubner and Stanton (1976), proposed a self-concept model that could be empirically measured and was characterized by its multifaceted and hierarchical nature. The Shavelson model posited a general self-concept at the apex of the hierarchy beneath which are academic and non-academic self-concepts and each is further sub-divided into self-concepts in various subject dimensions as indicated in Figure 1:

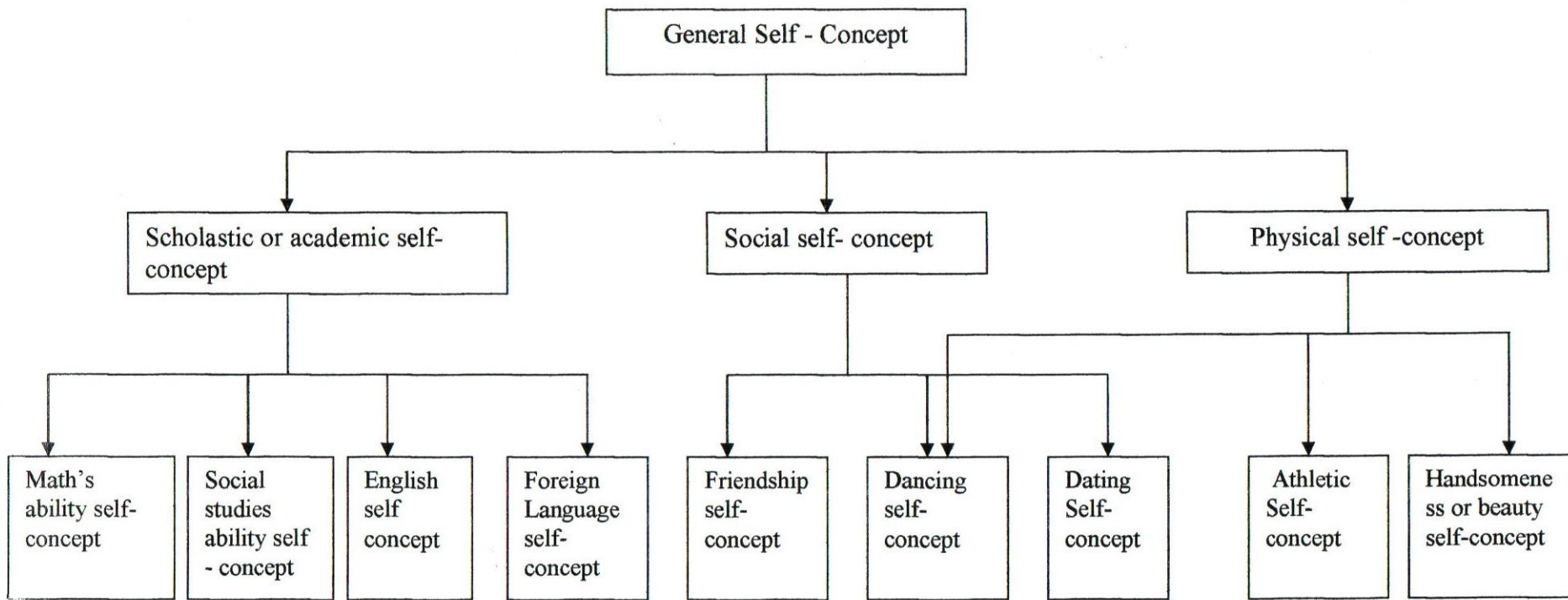


Figure 1: Levels of self-concepts for students

Source: Adopted from Shavel R. J. Hubner J. J and Stanton G. C. (1976). Self - concept validation of construct interpretations.

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Researchers have shifted the focus from the self-concept as a broad global construct to a multifaceted, hierarchical construct (Marsh, 1993 & 1994). The multidimensionality of self-concept emphasizes that people have different perceptions of themselves in specific domains of life such as physical, social and work (Harter 1985; Marsh & Shavelson, 1985). With this multidimensionality of self came the opportunity to investigate the academic self-concept. According to Bassey (2002), students with positive academic self-concept towards any school subject perform better in such subject than student with negative academic self-concept towards the subject. This is because students tend to reflect on what they have achieved and this either motivates them to achieve highly or discourages them.

An understanding of student's academic self - concept is becoming more and more of a vital concern in educational psychology. This is because academic self-concept is found to possess a predictive and in some cases causal value over other educational outcome. Academic achievement has substantial effects on subsequent academic self-concept and that the effect is reciprocal in manner (Marsh & Yeung, 1997a). Moreover, other researchers have found that academic achievement is more highly correlated with academic self-concept than with non-academic self-concepts (Byrne, 1984). Marsh (1990b), calls for future research to facilitate a better understanding of academic self-concept from a multi-dimensional perspective. This should consist of the general school ability self-concept and several subjects' specific self-concepts.

According to Mcann (1991), the primary goal of educators should be to enhance the academic self-concept of students. Students with a high academic self-concept are intrinsically motivated to learn at a higher cognitive level (Marsh 1990b). Students with positive academic self-concept have a basic belief in their abilities. Hence, students need to finish school with positive academic self-concept, certain skills and attitudes that motivates them to continue with the learning process throughout their lives. School success, particularly over many years predicts regard for self and ones ability (Bridgeman & Shipman, 1978). A sense of inadequacy and inferiority arise if children do not receive recognition for their efforts (Hamachek, 1995). When such recognition is given by parents and teachers, positive academic self-concept often follows. It follows that teaching that improves achievement should also improve academic self-concept. Every teaching technique should be evaluated in terms of what it does to the student's academic self-concept. Academic self-concept predicts student's school achievement as well as their willingness to try hard and challenging tasks (Marsh, Smith & Barnes, 1985).

Self-concept remains fairly stable during adolescence especially for children whose view of themselves was initially positive (Engel, 1959). Hence, the individual's academic self-concept is a learned structure which grows through training, identification with individual peers, teachers and significant other. The self - concept of an individual is effectively assessed from self-reports in academic and non-academic domains (Marsh, 1990b). Since the academic self concept is such a major factor influencing development and learning, the school must assume a prominent role in helping students to develop a more adequate academic self concept.

### **2.3 Factors that Influence Academic Self-concept and Academic Achievement**

Teachers, parents, peers, personal motivation and the student's gender strongly influence a student's academic self-concept and academic achievement. The Standard News-Paper 27/2/2000 reported that KCSE students spoke in glowing terms of their schools, classmates, teachers, parents and relatives. The top achievers also attributed their success to confidence from both teachers and parents and their own effort. These factors ought to be understood by all education stakeholders.

#### **2.3.1 Teacher's Influence**

Teacher's approval - disapproval patterns are directly related to pupils academic self-concepts (Davidson & Lang, 1960). The more positive a student believes about his/her teacher's evaluation of him/her, the better his/her academic achievement as measured by grades. The teacher bears a major responsibility for helping student's develop positive academic self-concepts. Staines (1958), found out that children in a classroom where the teacher help them to clarify their self-concepts and to accept themselves as they are, report significantly more self-pictures than children taught by a teacher who emphasizes on correct answers and passing of examinations.

The more positive the children's perception of their teachers' feelings towards them the better is their academic achievement (Maundu, 1980).Teacher's encouragement and the admiration of student's peers lead to enhanced academic self-concept. The individual student tries to make his/her work consistent with it; leading to improvement in his school work. .It is easy for teachers to blame parents for their children's poor behavior and low academic self-concept. Brennan (1985) suggested that academic self-concept is primarily improved by involvement in school and community experiences. Accordingly, to improve on student's

academic self-concept; teachers need to create a positive environment. This is an environment that students perceive as caring. Consequently, teachers who help to create a positive experience for their student aid them in seeing themselves in a positive light and help to develop healthy attitude towards learning. Teachers should therefore provide many opportunities for students to explore and discover themselves.

Teacher's expectations on their students greatly influence their actual performance (Lauer, 1998). Teachers should therefore avoid negative self-fulfilling prophecies and labeling of students. This occurs when incorrect believe results in behaviors that make original false judgment true (Brophy & Good, 1986). Hence, teachers need to concentrate on success and failure experiences of their students since; it is the student's history of success and failure that gives students the information on which to assess themselves (Bridgeman & Shipman, 1978). Materials taught should have personal relevance for students to become active participants in the learning process. Students should be taught to accept personal responsibility hence encourage development of a healthy academic self-concept. Students learn more when their teachers emphasize the purpose of learning and when the teachers are effective, interesting and students participation is encouraged (Berndt, 1997). Teachers therefore, bear a major responsibility in the development of their students' academic self-concept and academic achievement.

### **2.3.2 Parental Influence**

Parents affect the academic self-concept and academic achievement of their children hence, they should provide positive role models for the adolescents to identify and build positive identities. Parents who are more positive and encouraging have children who are more mastery oriented than helpless (Nolen-Hoeksema, 1995). These children work longer on difficult tasks and show more enthusiasm while working. Children also benefit when books and other reading materials are available at home (Hess & Hollway, 1984). Parents also provide materials that promote learning and an educationally rich environment that contribute to their children's academic achievement (Berndt, 1997).

The emotional relationship between a parent and a child, the attitude of a parent toward school and school achievement and a parents concern for and interest in the child's performance play a significant role in the development of children's academic self-concept and achievement (Johnson, 1965). Hence, learning difficulties leading to underachievement may signify a rebellion

against parents while excessive pressure for achievement unaccompanied by a satisfactory and rewarding relationship with parents may lead to anxiety and resentment in the child.

According to Mussen (1984), parents who create a high level of anxiety in their children and a strong concern about failing to measure up in evaluative situation may affect not only their children's overall adjustment and self-concept but his/her intellectual performance and academic achievement as well. The anxiety about failure may be so intense that it obstructs clear thinking and results in withdrawal of interest in academic tasks. The anxiety may inhibit the child from working to full capacity whereas resentment may cause him to disappoint the parents by not meeting their expectations. According to Wash (1956), underachievers have a history of disturbed personal relations especially with respect to their parents. In a longitudinal study by Haggard (1957), high achievers in distinction to low achievers tended to be more responsive to the socialization pressures of their parents, they accepted parental values and endeavored to live up to them. The child who is relatively free from anxiety and other emotional upsets best concentrates on academic matters.

Parents of underachievers tended to be anxiety ridden and unhappy themselves, and often project their unresolved problems and expectations onto their adolescents (McCandless & Evans, 1973). Such parents may pay too much attention to their adolescent's failures while ignoring their accomplishments. Underachievers often feel that they do not live up to their parents expectations and perceive their parents as uninterested or hostile towards them (Gallatin, 1975). Consequently, they find little reward in learning and school. Parents of achieving children provide a place to study, and to keep books. They set and insist on times for meals, sleep and homework, they monitor how much television their children watch and what they do after school; and they show interest in their children's lives at school by talking about school events and about the children's problems and successes (US department of Education, 1986).

Stevenson (1992), found that high achievers more often than underachievers described their parents as approving, trusting, affectionate, encouraging but not pressuring and described themselves as accepting their parents standards. Underachievers reported conflicts with parents over school matters, a feeling of lack of praise and support from parents and little feeling of independence. Parents should spend a great deal of time helping their children with school work and stress that academic success is their children's most important tasks. They should stress the importance of effort, hard work and perseverance in school. Greater effort among low achievers

is seen as a means to overcome academic difficulties (Stevenson, 1992). Children tend to accept their parents' appraisal of them. The child whose parents see him as a contributing and esteemed member of the family often takes the same positive view of himself. When parents convey the impression that the child is unworthy, burdensome, and irresponsible, such a negative self-image engenders guilt and anxiety for which the child may develop low academic self-concept and poor achievement.

### 2.3.3 Peers Influence

Mutie and Ndambuki (1999), define peers as people of the same age, rank, status and ability. Hence, they are friends or age-mates, who learn, compare ideas and do things together. Today, young people listen more carefully to people who are like themselves (Fuhrmann, 1986). Peers help the youth to form opinion about themselves and they obtain a more realistic gauge of their abilities.

Students who participate moderately in school activities and are popular with their peers tend to be better students in class (Rigsby & McDill, 1972). In an individualistic competitive society like ours, children are almost inescapably drawn into comparing themselves with their friends and peers in school and at play. Through comparisons, children deepen and sometimes alter their academic self-concepts. Peer influence serves as a means by which a youth can earn status, recognition and acceptance. The status system within the adolescence society exerts a considerable influence on an adolescence activities and striving (Coleman, 1961). For example, if academic success and grades were a major avenue through which a youth could gain entry into a leading crowd, there is a good probability that she or he would exert substantial effort in that direction. Available evidence suggests that the peer group value system may normally function as a deterrent to academic pursuits (Braham & Coleman, 1965). School wide recognition for academic excellence would go a long way towards increasing the importance of academic within the peer value system.

Piaget (1926), asserts that peer interaction among students on learning tasks will lead to improved student's achievement which builds high academic self-concepts. With the onset of adolescence, there is an increase of peer influence that affects the shaping of goals and goal oriented behaviors (Nicholls, 1996). It is at this time that an individual begins to spend less amount of time with their family and more time with their peers. The satisfaction with these peer



relationship is important to the development of a good academic self-concept. Adolescents are more likely to have higher levels of academic self-concept and academic achievement if they are accepted by their peers (Atwater, 1983).

#### **2.3.4 Personal Motivation**

Educators define students' motivation to learn as an internal process that activates, guides and maintains a learner's behavior over time (Schunk, 1990). It propels and directs students to engage in academic activities, determine how much they learn from information to which they are exposed to (Slavin, 1997; Tuckman, 1992). According to Brophy and Good (1974), high levels of achievements often lead to high levels of motivation. Motivated students learn more effectively and unmotivated students are more likely to cause classroom disturbances. Motivation determines the time spent in different activities. The amount of time a student spends in academic pursuit has been found to be one of the better predictors of students' achievement (Fisher, 1978).

An adolescent personal motivation plays a role in how well he or she performs in school. Too much or too little drive or motivation has a negative influence on performance. Motivation to learn is the psychological process that includes cognitive and affective processes that influence the learning of all subjects taught in school. A motivated learner is able to use higher cognitive processes in learning the subject matter and absorbs and retains more from it (Graham & Golan, 1991). Such learners strive to understand the subject matter, improve on performance, seek challenges and persist at task even in face of failure (Woolfork, 1990). A teacher's task during instruction is therefore to discover, initiate and sustain students' motivation to learn and encourage them to engage in activities that lead to learning (Slavin, 1997).

The adolescents' level of academic drive will influence how effectively he or she utilizes his/her abilities and previous learning. An adolescent with a high need to achieve is internally motivated to excel in such evaluative settings (Michael, 1981). They have an inner personal motive to do well independent of immediate external rewards. Erikson (1967), suggested that emotional stability make academic success more likely, regardless of the teaching techniques used and vacillating behaviour in students is equated with poor achievement. Student's sense of self-worth affects their motivation in school (Cavington, 1984).

Higher estimates of our own powers lead to higher expectations of success which appear to evoke greater efforts and focus, eventuating in higher levels of performance. Relating self-attitude to academic performance leads to the view that positive attitudes represents a self-fulfilling prophecy of success; negative attitudes eventuate in anticipation of failure and perceived lack of ability which eventuate in low performance (Stangvik, 1979). Factors that relate to students' motivation to learn have attracted the interest of educators due to their potential for guiding teachers to select and use effective motivational strategies that would improve students' learning (Woolfolk, 1990).

### **2.3.5 Gender Influence**

Secondary School enrolment figures indicate that quantitative progress in education has been made since independence. The Government of Kenya has almost achieved gender parity in enrolment although; serious disparities still exist along gender lines with respect to academic achievement (UNICEF, 1993; Makau, 1994). Girls are associated with relatively better linguistic ability while boys are thought to have numerical ability (Bali, 1984). Girls are limited by poor performance in mathematics and science oriented subjects which are crucial determinants of placement in most well paying careers such as Medicine, Architecture and Engineering.

According to Atwater (1983), girls tend to be underachievers in schools regardless of differences in parents, teachers, peers and schools. Much of these are the result of sex-role stereo-typing. Sex-role differences are especially prominent in mathematics a traditionally male course. Horner (1972), indicated that girls tend to fear success in school mostly because success contradicts the traditional notion of women as non-competitive with men. These stereotyped expectations in relation to sex roles may tend to be reflected in the attitudes of parents and society towards the performance of boys and girls. Such differences in attitudes, treatment and expectations may influence the academic self-concept of male and female students. The way one perceives himself/herself is a function of the way he/she regards himself/herself and his/her interpretation of how he/she is perceived and treated by others (Mwamwenda, 1987).

Girls tend to enter puberty at the same time they change from primary to Secondary Schools, hence they are likely to suffer from depression (Peterson, Savigrani & Kennedy, 1991). The more major changes that take place at once, the greater the likelihood that grade points

averages, extra-curricula participation and academic self-concept will decline (Simmons & Burgeson, 1987).

According to Maritim (1979), there is a significant difference in academic self-concept between boys and girls. Girls have a lower academic self-concept as compared to boys. He attributed this finding to the teacher's low perception of the ability of the girls and the fact that girls perceive themselves as less competent as compared to boys. Therefore, girl's academic self-concept can be affected by the different perceptions and expectations from teachers, parents and peers. Girls' perception of their abilities and aspirations may also affect their academic self-concept negatively. During adolescence, girls feelings about themselves tend to vary and change rather easily.

The difference between the average scores of boys and girls on tests of verbal, spatial and mathematical ability though significant appear to be rather small in size (Hyde, 1981). Girls were reported to have done well in English, Kiswahili, CRE, Art and Design, German, and Music. Boys outperformed girls in key subjects as Mathematics and Sciences as well as in the overall performance (Atieno, 2006).

## **2.4 Conceptual Framework**

The conceptual framework is based on Kelly's Theory of personal constructs. This is a cognitive theory of personality, which assumes that most of human behavior is influenced by thinking, judging, and anticipating rather than instincts, drives, growth or other such motivating forces. The structure of personality according to Kelly involves "The personal construct"- this is a way of constructing or interpreting the world, based on his evaluation of himself, things that influence his life and his feelings of what the future will bring as a result of these evaluations. The development of personal construct depends on the relationship of the person with significant persons in his life. Hence, the interpretation of the world and himself are dependant on the reflections of his relationships with those persons who are close to him. If the personal constructs are based on experience, then the more varied and rich the individuals experiences, the more complex and elaborate his system of constructs (Chauhan, 1992).

According to Franken (1994), academic self-concept is not innate, but is developed or constructed by the individual through interaction with the environment and reflecting on that interaction. Hence, academic self-concept is dynamic and can be modified and changed. The

student environment includes teachers, parents and peers who aid in the formation of their personal construct in regard to academic self- concept and academic achievement. It is important that educators understand the role of the parents, teachers, peers and student's personal motivation and gender on academic self-concept and academic achievement of their students. In Kenya, cultural stereotypes expectations in relation to sex roles tend to be reflected in attitude of parents, teachers, and the rest of the society have towards performance of boys and girls. Girls are perceived to be of lower academic achievement than boys by their teachers and significant others and this may affect girls' academic self-concepts. Limitations in access to quality secondary school education, lack of social and house-hold support and low academic expectations sap girls academic self-concept, hence lower their academic performance compared to boys (Kigotho, 2005).

Another important factor in students' achievement is the quality of the school they attend (Papalia, 1999). The school categories affect students' academic self-concept and academic achievement. Schools with traditions for good academic performance are likely to have students with high academic self-concept. A good school has teachers who have high expectation for their students and place greater emphasis on academic than extra-curricular activities and closely monitor students' performance (Linney & Seidman, 1989). Students from high socio-economic families are likely to benefit from availability of books and other reading materials. Their fee is paid on time and parents provide educationally rich environment, which contribute to their children high academic achievement and academic self-concept. Students from low socio-economic families are likely to miss books, fees and a place to study hence low academic achievement and also academic self-concept (Berndt, 1997). Figure 2 is a diagrammatic representation of the relationship among factors that influences academic self-concept and academic achievement.

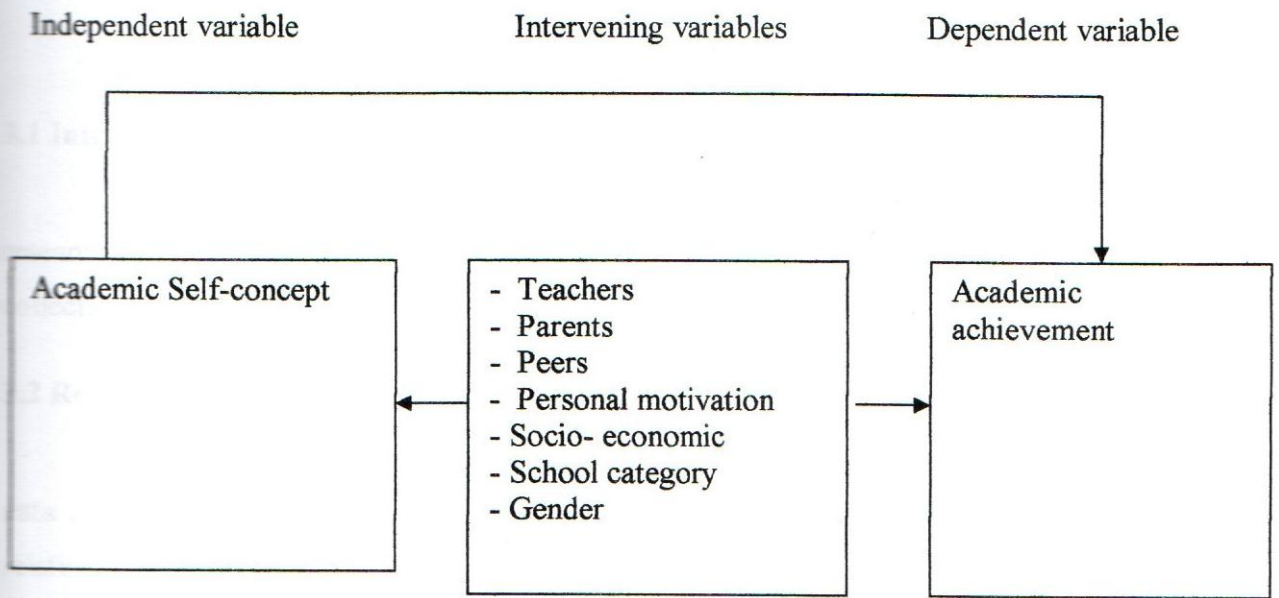


Figure 2: The relationship between academic self-concept and academic achievement.

Students' academic self-concept is the independent variable and academic achievement is the dependent variable in this study. Academic self-concept and academic achievement have an interactive and reciprocal relationship; each is mutually reinforcing to the extent that a positive or negative change in one facilitates a commensurate change in the other (Hamachek, 1995). These are also affected by intervening variables which include the school category, personal motivation, significant others and family socio-economic status.

## 2.5 Summary of the Literature Review

A review of literature has shown that there is a positive relationship between academic self-concept and academic achievement. This is the result of influence by parents, teachers, peers (external factors) and personal motivation (internal factor). However, most of the research conducted is limited and mostly done in developed countries; therefore it may not be conclusive and applicable to the Kenyan situation hence, the need for further research

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1 Introduction**

This chapter gives a brief description of the research methodology which includes research design, population, sampling procedures and sample size, instrumentation, data collection procedures and data analysis.

### **3.2 Research Design**

This study adopted a correlational research design. This is a research design in which data is collected on a number of variables simultaneously with the aim of establishing the relationships between the variables (Bryman & Cramer, 2001). In this study, data was collected on academic self-concept and on academic achievement in order to determine the relationships between the two variables. The design attempted to determine the cause or consequences of differences that already exists between or among groups of individuals. Both the effect (s) and the alleged cause (s) have already occurred (Fraenkel & Wallen, 2000).

### **3.3 Location of the Study**

This study was conducted within Nakuru Municipality because it is a cosmopolitan town, most schools are accessible, has the three categories of schools; National, provincial and District and it had the characteristic needed for the study. The location was also chosen because the researcher is familiar with the area since she is a teacher in a school in the study area.

### **3.4 Population of the Study**

The study targeted ten mixed public secondary schools in Nakuru Municipality which had registered students for K.C.S.E for the last five years. The target population was 1,552 form four students from the ten public secondary schools in the Municipality. The availability of a large number of students helped the researcher to get the desired sample without much difficulty. Moreover, students selected had stayed in those schools for more than two years, and it was presumed that, the school environment had some influence on their academic self-concept. The students are considered to be better placed to report their academic self-concept since they have been in school for a longer period as compared to others and have selected the subjects they wish to take for the K.C.S.E examination. The students are already grounded well in their academic

self-concept. Mixed schools were selected so as to obtain responses from male and female students, who were needed for testing the differences in gender.

### 3.5 Sampling procedures and Sample size

Proportionate stratified sampling was used in selecting categories of schools in the study area. The schools were categories into three groups including national, provincial and district schools. Purposive sampling was used to select the only national school in the area. However, simple random sampling was used to select two out of 4 Provincial schools and two out of the five District schools. Simple random sampling was also used in selecting the classes that participated from each selected schools. Two classes were selected from the National school and a class each from the Provincial and District schools. The five schools had a student population of 650. According to Kathuri and Pals (1993), an accessible population of 650 should have a minimum sample size of 240 students. However, only 219 students (117 boys, and 102 girls) managed to correctly complete the questionnaire. The remaining 21 returned incomplete and incorrectly filled questionnaires which were not used in the final data analysis. The sampled population was distributed as illustrated in Table 2.

Table 2

Distribution of Sample Schools in Nakuru Municipality.

School category	Boys	Girls	Total
District	41	30	71
Provincial	40	30	70
National	36	42	78
Total	117	102	219

### 3.6 Instrumentation

The researcher prepared a self-report questionnaire to collect information on students' academic self-concept. The basic assumption underlying self-report scale was that what the individual reported about himself/herself reflected the way he/she perceives himself/herself and the way he/she wants his/her significant others to perceive him/her. A total of 23 items was developed by the help of the objectives, related literature and existing scales was used to measure subjects' academic self-concept. A five point Likert-type rating scale developed by the researcher using existing scales as a guide was used; (strongly agree – SA, agree –A,

undecided – U, disagree – D, and strongly disagree – SD). A table in which class teachers indicated the academic achievement for the form four students in their end of term examinations was used.

To validate the instrument, the questionnaire was revised by the supervisor and other research experts. In addition, the questionnaire was pilot tested with a randomly selected sample of 20 students from a school in Bahati Division. All the 20 students were sampled from form four classes. Piloting was done to establish the clarity of meaning and comprehensibility of each item, determine the time to complete the questionnaire and establish reliability of the research instruments. The reliability coefficient of 0.6781 was established which was slightly below the acceptable reliability co-efficient of 0.7 and above (Fraenkel & Wallen 2000). The instrument was therefore revised to improve the reliability coefficient.

### **3.7 Data Collection Procedures**

Upon approval of the research proposal, permission was sought from the Municipal Education Office to carry out research in the selected schools. The researcher visited the sampled schools to explain the purpose of the study and solicit permission and cooperation from the school principals and the class teachers concerned. The researcher visited the identified schools and personally sampled and administered the questionnaires with the help of class teachers to the sample persons. The students took 20 to 25 minutes to complete the questionnaires. Class teachers assisted the researcher with the examination marks and in getting the participants to fill in the questionnaires. The average marks for each respondent was computed by the researcher. Data collection process took a month.

### **3.8 Data Analysis**

Descriptive and inferential statistics were used to analyze the data. These included the testing of hypotheses by use of Pearson's product moment correlation, ANOVA, chi-square and t-test. All tests were done at a significance level of  $\alpha = 0.05$ . The data obtained from the respondents in the sampled schools was analyzed using the statistical Package for Social Sciences (SPSS). Appropriate figures and tables were used to summarize and illustrate the results. The statistical analyses were used to test acceptance or rejection of the four hypotheses.



## CHAPTER FOUR: RESULTS AND DISCUSSIONS

### 4.1 Introduction

Assessing students' academic self-concept and its influence on academic achievement by educators can serve as a useful indicator of students' academic achievement. It can also enhance the understanding of the process and outcome of secondary school education. The data obtained from the respondents was analyzed with the help of computer using SPSS version 2000 for windows. The results presented below correspond to the four hypotheses of the study. Descriptive and inferential statistics have been used to analyses the data.

### 4.2 Relationship between Students Academic Self-concept and Academic Achievement

Academic self-concept in this study was measured on a 5-point likert scale using 23 items (statements). An overall academic self-concept was computed by summing up the individual scores of each item and the score varied between 23, indicating the lowest academic self-concept score, and 115, indicating the highest academic self-concept score. The higher the score, the more positive is the academic self-concept, and vice versa. Academic achievement of the students, on the other hand, was measured by assessing their average total marks out of 700 in Form three and Form four. The overall academic achievement means score were later computed by getting the average of the Form three and four mean scores.

The first null hypotheses stated, "there is no significant relationship between students' academic self-concept and the academic achievement". Correlation analysis was used to test this hypothesis. This was done so as to determine the strength and the direction of the relationship between the two variables (academic self-concept and academic achievement mean score). In this case, academic self-concept was treated as the independent variable while academic achievement mean score was treated as the dependent variable. Table 3 shows a correlation coefficient matrix of academic self-concept and academic achievement mean score.

Table 3

## Pearson Correlation of Academic Achievement and Academic Self-concept

Variables	Coefficient and statistics	Academic self-concept	Academic achievement
Academic self-concept	Pearson Correlation	1.000	.824*
	Sig. (2-tailed)	.	.000
	N	219	219
Academic achievement mean score	Pearson Correlation	.824*	1.000
	Sig. (2-tailed)	.000	.
	N	219	219

From the table, there is a strong positive significant correlation between academic self-concept and academic achievement mean score ( $r = .824$ ,  $p < 0.05$ ). Since  $p < 0.05$ , the null hypotheses that suggested, “there is no significant relationship between students academic self-concept and their academic achievement” was rejected. This suggests that students with a high academic self-concept are more likely to record high academic achievement, and vice versa. These results support the findings of previous studies that indicated a positive relationship between academic self-concept and measures of academic achievements (Purkey, 1970; Maritim, 1980; Marsh, 1990; Bassey, 2002). Hence, students with high academic self-concept are likely to be successful in school.

#### 4.3 Gender Differences in Academic Self-concept among Students in Secondary schools

The second null hypothesis stated that there is no significant gender difference in academic self-concept among the students. The independent sample t-test was used to determine whether the difference in the means between the two samples is significant or not. For t-test to be used, the grouping variable (gender of students: male and female) should be nominal or ordinal variable, while the test variable (academic self-concept) should be interval or continuous variable (actual scores). Table 4 depicts the output for the t-test.

Table 4

T-Test Comparing the Academic Self Concept by gender

Variable	N	Perception mean	Mean difference	t-value	Sig. (2 tailed)
Males	117	90.75	1.29	1.341	0.181
Female	102	89.46			

Since  $p$  value  $> 0.05$ , the null hypothesis that suggested that “there is no significant difference in academic self-concept between boys and girls” was not rejected. This suggests academic self-concept is not gender-biased if the students’ conditions are the same. This is in contrast with previous studies that reported academic self-concept of boys to be higher than that of girls (Maritim, 1979; Verkuyten, 1995). The findings in this study can be partly attributed to the changing attitudes towards education of children of all sexes. The clamour for equality and the recognition of the rights of women and girls might have resulted in more or less equal treatment of children of different sexes (Muola, 1999; Gichuru, 2005). Thus, this may imply that the female child no longer perceives herself as being different from the male child. If social interactions and treatment from parents, teachers and peers do not imply discrimination between children of different sexes, their academic self-concept will equally be influenced.

The above results are also supported by chi-square test. Chi-square is used to compare the frequency of two or more unrelated samples or categories of variables. It is preferred when dealing with variables that have been categorized for example students gender (male and female), and academic self-concept (low, average and high). Table 5 shows a cross tabulation of the academic self-concept by gender of the students.

Table 5

Academic Self-Concept by Gender

Academic self concept	Gender		Total
	Male	Female	
Low	0	0	0
Average	25	25	50
High	92	77	169
	117	102	219

$\chi^2 = 0.305$        $p = .581$        $df = 1$

Table 5, suggests that it is unlikely for there to be any significant difference in academic self-concept between male and female students. It can be observed that the trend of academic self-concept distribution of both male and female students seem to be similar as majority (more than 75.0 percent) of them tend to fall in the high academic self-concept category. This is further supported by the chi-square value that suggested that there is unlikely to be any significant difference between the two variables.

#### 4.4 Differences in Academic Self-Concept among Students in Various School Categories

The third hypothesis stated that there is no significant difference in the students' academic self-concept between the three categories of secondary schools in the study area. ANOVA was used to test this hypothesis. Analysis of Variance (ANOVA) was preferred to t-test in this case because the grouping variable (school category) is categorized in more than two groups (district, provincial and national). The output for the ANOVA is displayed in Tables 6 and 7.

Table 6  
Students Academic Self-Concept

Categories of schools	N	Mean	Minimum	Maximum
District	71	90.74	75	104
Provincial	70	88.97	68	103
National	78	90.66	76	106
Total	219	90.14	68	106

Table 7  
ANOVA Comparing Academic Self-concept

Variable	Degree of freedom	Sum of squares	of Mean squares	F	p value
Explained variance	3	141.373	70.687	1.402	0.248
Unexplained variance	216	10890.267	50.418		

Since  $p$  value  $> 0.05$ , the null hypothesis that stated "there is no significant difference in the level of academic self-concept between the three categories of secondary schools" was not rejected. This suggests that student's academic self-concept is independent of the school

category. Thus, students in any school category can be motivated to achieve academically. The above results using ANOVA are also supported by chi-square test using cross tabulation. Academic self-concept was cross tabulated by school categories. Table 8, shows a cross tabulation of the academic achievement by school categories.

Table 8

Academic Self-concept by category of school

Academic self concept	School categories			Total
	District	Provincial	National	
Low	0	0	0	0
Average	18	17	15	50
High	50	53	63	169
	71	70	78	219

$\chi^2 = 0.914$        $p = .633$        $df = 2$

Table 8 suggests that it is unlikely to have any significant difference in academic self-concept among the students of different school categories. It can be observed that the trend of academic self-concept distribution of among the school categories is almost the same. Most of the students tend to be in the high academic self-concept category. This is further supported by the chi-square value that suggested there no significant difference between the two variables. This could be attributed to the fact that students in all schools in the country are subjected to almost the same kind of external and internal influences. This suggests that all students in any school aspire to perform better in their academic work regardless of their individual differences. Thus, students' academic self-concept is independent of the category of school.

#### 4.5 Gender Differences in Academic Achievement

The fourth null hypothesis that stated there is no significant gender differences in the academic achievement mean score of male and female students. Independent sample t-test was used to test this hypothesis. Table 9 depicts the output for the t-test.

Table 9

## T-test Comparing Academic Achievement by Gender

Gender	N	Mean	Mean dif	T	Df	p value
Boys	117	393.16	17.51	1.138	217	0.256
Girls	102	375.65				

$$p = 0.639 \quad p > 0.05$$

Since  $p$  value  $> 0.05$ , the null hypothesis that stated “there is no statistically significant difference in the level of academic achievement between boys and girls in secondary schools” was not rejected. Therefore, this suggests that academic achievement is not gender biased hence a boy or a girl can be motivated to achieve highly in academics if other factors are held constant.

The above results using independent sample t-test are also supported by chi square test using cross tabulation. Note the overall academic achievement mean score was divided into three ordinal categories including 0-233 marks (low), 234-466 (average) and 467-700 (high). In this case academic achievement mean score was cross tabulated by gender of the students. Table 10 shows a cross tabulation of the academic achievement by gender of the students.

Table 10

## Academic Achievement by Gender

Academic achievement	Gender		Total
	Male	Female	
Low	12	13	25
Average	71	62	133
High	34	27	61
	117	102	219

$$\chi^2 = 0.427 \quad p = .808 \quad df = 2$$

Table 10 suggests that it is unlikely for there to be any significant gender difference in academic achievement. It can be observed that the trend of academic achievement distribution of between male and female students seem to be similar as majority of them tend to fall in the average academic achievement category. This is further supported by the chi-square value, which suggests that there is unlikely to be any significant difference between the two variables. This could be attributed to the fact that students in all schools in the study area are subjected to similar

learning environment and therefore performance depends on the ability of the students and not on gender.

#### 4.6 Academic Self- concept as a result of External and Internal Factors

The fifth objective was to determine the influence of internal and external factors on academic self-concept of students. To effectively assess academic self-concept among secondary school students in the study area, two dimensions of the concept were considered depending on how they influenced one's academic self-concept. The dimensions included: external factors (teachers, peers and parents); and internal factors (personal motivation). These two components together determine the overall academic self-concept of a student in a school. This study therefore examined the influence of each of these components separately and cumulatively as the overall academic self-concept of a student.

##### 4.6.1 Academic Self-concept as a result of External factors

To measure the level of academic self-concept as a result of external influence, sample respondents were presented with eleven statements (items) related to academic self-concept. There were five items related to teacher's influence and three each related to peer and parent influence, respectively. They were requested to indicate their degree of agreement or disagreement on a five-point range. The Table 11 illustrates the distribution of their responses.

Table 11

Students' Academic Self-concept due to External Factors

Statement	Response (%)				
	SA	A	U	D	SD
I ask my friends questions when I don't know what to do	41.6	53.0	4.1	0.0	1.4
Other students ask me to explain to them some subjects	30.6	60.3	5.9	3.2	0.0
My parents are approving and encouraging	68.5	20.5	6.4	3.7	0.9
My teachers ask me questions in class	18.3	71.3	5.0	4.6	0.9
Most of my teachers encourage me to work hard	42.0	45.7	4.1	6.4	1.8
Good teachers praise me when I perform well	30.1	44.7	12.8	10.5	1.8
Most of my friends achieve high grades	14.2	55.7	9.1	15.1	5.9
I don't accept my parents standard of academic achievement	36.5	26.9	13.7	12.3	10.5
I ask my teachers what to do when I don't understand	19.2	42.0	19.2	13.7	5.9
My parents expect too much from me	32.0	27.9	9.1	22.8	8.2
I dislike teachers who ignore me	7.3	7.3	9.1	27.9	48.4

The results indicate that external factors, which include peers, teachers and parents, play a major role in students' academic self-concept. Students highly regard other students as a source of help in their academic endeavors from whom they get and provide help. Students' satisfaction with their peer relations is important to the development of their academic self-concept. Students also value teachers who encourage, praise and assist them to learn but rate teachers who ignore them lowly. The best liked teachers are warm, friendly, encouraging, make learning interesting, and are emotionally involved with their students (Atwater, 1983) Teachers bear a major responsibility for helping students develop positive academic self-concept (Staines, 1958: Maundu, 1980:& Lauer, 1998). Teachers need to create positive environment perceived by students to be caring, approving, and encouraging while materials taught should have personal relevance to the students.

Parents who are approving and encouraging are rated highly but most students don't seem to accept their parents' standard of academic achievement, which they feel is too much. High achievers more often than under achievers describe their parents as approving, trusting, affectionate, and encouraging, but not pressuring and they accept their parents' standards (Stevenson, 1992).

The answer to each constituent item was scored on a scale of 1, indicating lowest level of academic self-concept, to 5, indicating highest level of academic self-concept. The individual scores were added up to form an overall score for each respondent. The overall score varied between 11, indicating the least overall low level of academic self-concept, and 55, indicating the highest level of academic self-concept. The higher the score, the higher is the academic self-concept as a result of the external factors, and vice versa. The scores were then divided into three ordinal levels of academic self-concept including 11-25 (low); 26-40 (average); and 41-55 (high). Table 12 depicts the distribution of the level of academic self-concept as a result of external factors among the sample population.



Table 12

Levels of Academic Self-concept due to External factors

Levels of academic self-concept	Frequency	Percent
Low	0	0
Average	102	46.6
High	117	53.4
Total	219	100.0

From the above table, 53.4 percent of the sampled students indicated a high academic self-concept due to the influence they get from teachers, peers and parents. The remaining 47 percent indicated average academic self-concept. All the sampled students appreciated the role played by their teachers, parents and peers in influencing their academic self-concept. This agrees with previous studies by Franken (1994) that student's environment take part in reinforcing positively or negatively the academic self-concept of a learner.

#### 4.6.2 Academic Self-Concept as a Result of Internal Factors

To measure the level of academic self-concept as a result internal factors, sampled respondents were presented with twelve items related to academic self-concept. They were requested to indicate their degree of agreement or disagreement on a five-point range. Table13 shows the distribution of their responses on the items.

Table 13

Academic Self-concept as a result of Internal Factors

Statement	Response (%)				
	SA	A	U	D	SD
High academic achievement is very important for me	83.6	11.0	4.6	0.9	0.0
I am capable of passing exams and advancing further	63.9	32.9	3.2	0.0	0.0
Praise for obtaining good marks in exams increases my desire to excel	59.4	26.9	7.3	5.0	1.4
I enjoy learning on my own	23.7	37.0	18.7	17.4	3.2
I have always done well in my exams	7.8	30.1	37.4	22.4	2.3
I see my self as a victim of circumstances	11.9	13.7	21.0	18.7	34.7
I find it hard to work independently on class assignment	6.4	12.8	10.5	40.8	29.7
I fear exams	1.4	18.3	29.7	27.9	22.8
My high academic achievement is due to good luck	7.8	9.1	8.2	32.9	42.0
I am unlikely to get good grades in KCSE because examinations are difficult	2.7	3.7	5.9	14.6	73.1
I would never want to advance in my education	2.3	0.5	2.7	11.0	83.6
I care less about my academic achievement	0.9	1.8	1.4	16.4	79.5

N = 219

Students' personal motivation plays an important role in their academic self-concept. Most students feel that high academic achievement is very important to them, are capable of obtaining good marks and advancing in their studies. They did not attribute their academic achievement to good luck, difficult or fear of examinations.

The answer to each constituent item was scored on a scale of 1, indicating lowest level of academic self-concept, to 5, indicating highest level of academic self-concept. The individual scores were added up to form an overall score for each respondent. The overall score varied between 12, indicating the least overall low level of academic self-concept, and 60, indicating the highest level of academic self-concept. The higher the score, the higher is the academic self-concept as a result of the external factors, and vice versa. The scores were then divided into three ordinal levels of academic self-concept including 12-27 (Low); 28-44 (Average); and 44-60 (High). Table 14, depicts the distribution of academic self-concept as a result of personal motivation in the sampled population.

Table 14

Levels of Academic Self-concept due to External Factors

Levels of academic self-concept	Frequency	Percent
Low	0	0.0
Average	44	20.1
High	175	79.9
Total	219	100.0

From the above table, 80 percent of the sampled students indicated a high academic self-concept due to personal motivation. Hence, personal motivation contributes significantly to high academic self-concept leading to high academic achievement. This is because academic self-concept and academic achievement have an interactive and reciprocal relationship (Hamachek, 1995).

#### 4.6.3 Overall Academic Self-Concept

Overall academic self-concept of a student in a school was then computed by summing up the above two dimension scales: Academic self-concept as a result of external influence; and Academic self-concept as a result of internal influence. The overall score varied between 23, indicating the least overall low level of academic self-concept, and 115, indicating the highest

overall low level of academic self-concept. The higher the score, the higher is the academic self-concept of a student, and vice versa. The overall score was later coded into three ordinal categories in order to differentiate between the levels of academic self-concept among the sample respondents and included 23-53 (Low); 54-84 (Average) and 85-115 (High). Table 15 depicts the distribution of the overall level of academic self-concept among the sample population.

Table 15  
Overall Level of Academic Self-Concept

Level of academic self concept	Frequency	Percent
Low	0	0.0
Average	50	22.8
High	169	77.2
Total	219	100.0

From the table, majority (77 percent) of the sampled students indicated a high academic self-concept. This implies that most students think of themselves being above average in academic self-concept. Hence, academic self-concept of students is influenced by both external and internal factors.

## CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

### 5.1 Introduction

The purpose of this study was to establish the relationship between academic self-concept and academic achievement of students in Nakuru municipality. This chapter therefore presents the summary and conclusions drawn from the findings of the study. Secondly, the recommendations on how the findings obtained can be applied to improve academic self-concept and academic achievement are given. Finally, some suggestions for consideration in future research are highlighted.

### 5.2 Summary of Findings

Based on the objectives, research questions and the analysis of this study in chapter four, the following major findings were established:

- (i) There is a significantly positive relationship between academic self-concept and academic achievement of secondary school students.
- (ii) There is no significant effect of students' gender on academic self-concept. Boys and girls given the same conditions are likely to experience the same academic self-concept.
- (iii) There no significant difference in academic self-concept among students in the different school categories.
- (iv) There is no significant gender difference in academic achievement of students. Boys and girls can achieve equally if conditions are almost the same. All public schools have the basic resources for learning, which include teachers and physical facilities like classrooms and laboratories.
- (v) There is a significant influence of external and internal factors on academic self-concept of students. External factors of influence includes; teachers, peers and parents while internal the personal motivations.

### 5.3 Conclusion

The main aim of the study was to determine the relationship between academic self-concept and academic achievement in public secondary schools in Nakuru municipality. From the study it can be concluded that there is a significant relationship between academic self-

concept and academic achievement. The student gender and the school category do not have significant effect on academic self-concept and academic achievement.

#### **5.4 Recommendations**

The recommendations made here are based on the findings obtained in this study. The research has reported positive relationship between academic self-concept and academic achievement among students. The findings would enable education stakeholders like parents, teachers, and policy makers to come up with appropriate strategies to curb poor academic self-concept and low academic achievement. Education stakeholders can use the following recommendations to raise the academic self-concept of their students and hence, improve their academic achievement.

- (i) Efforts to assist students develop high academic self-concept should be encouraged for example; encouraging the students to develop competence in various areas and to interact more often with other people who are expected to give him/her a complete picture of his/her self-worth. Students should be encouraged to interact more often with other students and teachers to help them have higher academic self-concept.
- (ii) Educators should appreciate the impact of academic self-concept on academic achievement. Teachers and parents need to cultivate in their children a culture of personal responsibility and they should be made to see the relationship between their own effort and good results. They should be discouraged from seeing success in life as a matter of chance or luck.
- (iii) More accurate methods of assessing the students' actual abilities and their academic self-definitions should be developed. Common examinations for all students should be used instead of separate end of term marks; standardized achievement tests can be used.
- (iv) There is need to develop a formal inventory to be used as a tool by teachers and counselors to assess students academic self-concept and its impact on academic achievement.

#### **5.5 Suggestions for Further Research.**

This study suggests the following areas for further research:

- (i) Other studies should be conducted to confirm the findings of this study. A larger sample could be studied in future to ascertain the findings of the present study.
- (ii) A study on students-students, students-teachers, and students- parents interaction can best be done through direct observation. This may be necessary before a final conclusion on whether these factors affect academic self-concept and academic achievement of students. The influence of specific factors within schools and homes should be further investigated.
- (iii) There is need for a well-controlled experimental research on the relationship between academic self-concept and academic achievement because of the likelihood of the presence of extraneous factors.
- (iv) Further research is needed to determine how factors such as cultural expectations and differential opportunities influence academic self-concept and academic achievement.
- (v) The influence of other factors that cause variation in academic achievement of students in K.C.S.E. need to be investigated which include; family background, family size, and absenteeism.

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## APPENDICES

### APPENDIX A: QUESTIONNAIRE FOR STUDENTS

Dear respondent,

My name is Wamathai Ann and I am a M. Ed. Student at Egerton University currently undertaking research on the Relationship between students' Academic self-concept and academic achievement in secondary schools. Due to your position as a student, I have chosen you to participate in the study. I assure you that the information you give will be treated confidentially, and it shall not be used for any other purpose other than the academic use for which it is intended. I am requesting you to give honest information as required. Note; there is no right or wrong answers because everyone has a right to his/her own views.

Admission No. -----

Class -----

Sex .....

**Please indicate the extent to which you agree with the statement in the following questions.**

Circle the letters that best describe your level of agreement.

Key

1. S A =Strongly Agree
2. A = Agree
3. U =Undecided
4. D =Disagree
5. S D =Strongly Disagree

Example: I like all my teachers

SA (A) U D SD

**Use the key provided to indicate your level of agreement with the statement.**

- |   |    |   |   |   |    |
|---|----|---|---|---|----|
| 1. My teachers ask me questions in class                | SA | A | U | D | SD |
| 2. I ask my teachers what to do when I don't understand | SA | A | U | D | SD |
| 3. I dislike teachers who ignore me                     | SA | A | U | D | SD |
| 4. Good teachers praise me when I perform well          | SA | A | U | D | SD |
| 5. Most of my teachers encourage me to work hard        | SA | A | U | D | SD |

- |  |    |   |   |   |    |
|--|----|---|---|---|----|
| 6. .Most of my friends achieve high grade  | SA | A | U | D | SD |
| 7. .I ask my friends questions when I don't know what to do                              | SA | A | U | D | SD |
| 8. Other students ask me to explain to them some subjects                                | SA | A | U | D | SD |
| 9. Praise for obtaining good marks in exams increases my<br>desire to excel              | SA | A | U | D | SD |
| 10. I have always done well in exams   | SA | A | U | D | SD |
| 11. I am capable of passing exams and advancing further                                  | SA | A | U | D | SD |
| 12. I see myself as a victim of circumstances  | SA | A | U | D | SD |
| 13. High academic achievement is very important to me.                                   | SA | A | U | D | SD |
| 14. I fear exams   | SA | A | U | D | SD |
| 15. I care less about academic achievement   | SA | A | U | D | SD |
| 16. My parents are approving and encouraging   | SA | A | U | D | SD |
| 17. I don't accept my parents standard of academic achievement                           | SA | A | U | D | SD |
| 18. My parents expect too much from me   | SA | A | U | D | SD |
| 19. I enjoy learning on my own   | SA | A | U | D | SD |
| 20. My high academic achievement is due to good luck                                     | SA | A | U | D | SD |
| 21. I am unlikely to get good grades in KCSE because these<br>examinations are difficult | SA | A | U | D | SD |
| 22. I would never want to advance in my education  | SA | A | U | D | SD |
| 23. I find it hard to work independently on class assignment                             | SA | A | U | D | SD |

Thanks for your cooperation

## APPENDIX B: STUDENTS ACADEMIC ACHIEVEMENT TABLE

Please indicate the marks attained by each student in the table below

Name of school \_\_\_\_\_

Admission number \_\_\_\_\_

Sex \_\_\_\_\_

**Table 1.5**

Student Academic Achievement Score

<b>Form III – 2004</b>	<b>Aggregate</b>	<b>Grade</b>
First Term		
Second Term		
Third Term		
<b>Form IV – 2005</b>		
First Term		
<b>Average</b>		



### APPENDIX C: REQUIRED SIZE FOR THE SAMPLE

N	S	N	S	N	S
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	25	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	600	361
110	86	550	226	700	364
120	92	600	234	800	367
130	97	650	241	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377

N=Population size; S=sample size: Table adopted from Kathuri and pals (1993)

Telephone: Nakuru 61620, 61601, 61602  
Telegrams: UNIVERSITY, Njoro  
Telex: 33075



# EGERTON UNIVERSITY

P.O. Box 536  
Njoro, Kenya.

Date: 24/2/05

In reply quote Ref: \_\_\_\_\_

**TO WHOM IT MAY CONCERN**

**RE: GUIDANCE AND COUNSELLING STUDENTS RESEARCH**

The above programme is offered in our University at Master's level. In order to complete their study requirements they have to carry out a research. They are currently seeking a place to do so and have found your institution a valuable place to enhance their learning.

I wish to introduce to you, Wamathai ANN registration number EM 16/1033/03 for your kind assistance in their study.

Please, accord them the help they may need in order to achieve this objective. While they are carrying out a research, they are familiar and bound by the ethical standards of collecting information, safeguard of the same, and using the findings pro-actively.

On behalf of the University, we wish you well and thank you for your partnership in the training of our students.

Sincerely,

**DR. MR. STEPHEN MBUGUA NGARI**  
**CHAIRMAN, DEPARTMENT OF EDUCATIONAL, PSYCHOLOGY AND**  
**COUNSELLING**

For: Vice Chancellor - Egerton University

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