RELATIONSHIP BETWEEN SCHOOL CLIMATE AND STUDENTS' SUBJECT CHOICE IN PUBLIC SECONDARY SCHOOLS IN NAIROBI COUNTY, KENYA

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A Thesis Submitted to the School of Education in Partial Fulfillment of the Requirements for the Award of Degree of Doctor of Philosophy in Curriculum Studies

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DECLARATION AND APPROVAL

This Thesis is my original work and has not been presented to any other university for a degree.

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APPROVAL

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ABSTRACT

School climate is the collective characteristic of an organization-the overall atmosphere that one senses on entering a school. It is the quality of the character of school life based on patterns of students, parents and school administration. It has three essential dimensions, Physical, Social and Academic which all impacts on students' subject choice. Subject choice is crucial in the life of students because the choice they make determine the career path they shall pursue in life. It is in a school that a learner acquires norms, values and expectations that enable them make the right choice. This is the essence of this study which sought to establish whether there is significant relationship between school climate and students' subject choice in public secondary schools in Kenya. The study adopted descriptive survey research design. It was done in Nairobi County which had 79 public secondary schools,79 principals, 316 Heads of academic department and 10,920 Form Three students. Out of this target population, 30 public secondary schools were sampled randomly to get 30 principals. Purposive sampling was used to select 120 Heads of academic department and 390 Form Three students. The instruments for data collection were questionnaires for principals, teachers and Form Three students and observation check list. Data collected was coded and computed with the help of SPSS version 18 to get means, frequencies, percentages and Standard Deviations for qualitative data. Analysis was done using Pearson's Chi square test and One Way ANOVAs for quantitative data. The study revealed that there was significant relationship between school climate and students' subject choice at a p-value of .041 which was less than the level of significance of .05. In view of the study findings, it was recommended that the Ministry of education should formulate follow up guidelines that would encourage instructional leaders to create positive school climate that would enhance wholesome development of students in secondary schools so that acquired skills of decision making can enable them to make informed decisions on subject choice. The study findings are additional knowledge in the field of Education.

DEDICATION

This Thesis is dedicated to my late loving mother for her great love, sacrifice and encouragement towards my education.“Thank you loving mummy, your sacrifice has enhanced the achievement of my academic dream.”

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LIST OF ABBREVIATIONS

BOM	Board of Management
CRE	Christian Religious Education
DEV	Deviation
HOD	Head of department
HRE	Hindu Religious Education
IRE	Islamic Religious Education
KEMI	Kenya Education Management Institute
KESSP	Kenya Education Sector Support Programme
KICD	Kenya Institute of Curriculum Development
MOE	Ministry of Education
N	Number
ROK	Republic of Kenya
SPSS	Statistical Package for Social Science
STD	Standard
TSC	Teachers' Service Commission
UNESCO	United Nations Educational, Scientific and Cultural Organization

CHAPTER ONE

INTRODUCTION

1.1 Overview

This chapter includes an overview of background to the study, statement of the problem, purpose of the study, objectives of the study, hypothesis, limitation and delimitation, significance of study and definition of significant terms.

1.2 Background to the Study

Students' years of schooling are designed to equip and enable them acquire skills, knowledge and depositions which enable them to meet their needs for future citizenship. In addition, schooling prepares students to participate in economic life such as employment and careers based on the decisions they made during their school life. For this to take place the learning environment must be conducive hence a positive school climate and when it is not, it is a negative school climate. The studies that have been conducted reveal that school climate as a broad term is used to describe the school environment. Scholars have identified several themes that identify what school climate entails. Austin, Mallery and Izu (2011), Cohen, Mc Cabe, Michelli and Pickeral (2009), Zullig, Koopman, Patton and Ubbes (2010) asserted that it entails; order, safety and discipline, academic supports, personal and social relationships, school facilities and school connectedness.

School climate is also said to be the collective characteristic of an organization, the overall atmosphere that one senses on entering a school (Pashiardis, 2000). It is the quality and character of school life based on patterns of students, parents and school

personnel. School life reflects norms, goals, values, interpersonal relationship, teaching and learning practices, organizational structures, learning resources and facilities. Many scholars have tried to define school climate in many ways in order to bring out the main features, themes as well as its importance.

In his definition of school climate, Pashiardis (2000) asserted that a positive school [organizational] climate is one where there is communication and collaboration among participants [principals, teachers and students] in reaching the goals of the school and where the school positively influences the behaviour of students and staff. To facilitate such a process, a school needs mechanisms to enhance collaboration and harmonize seemingly incompatible interests. According to Thompson and Luthans (1990), the knowledge of climate prevailing in an organization as a whole helps in better harnessing of human resources, enabling their effective development and utilization. This implies that since schools are organizations, the knowledge of climate prevailing in such would enhance effective development and utilization of human resource found in them. This would in turn lead to harmonious relationship between the teachers and students thus enhancing an environment that natures a student's life skill such as decision making. The national school climate survey revealed that a hostel school climate affects students' academic success and mental health (GLSEN, 2015).This means that students in schools with such climate would be negatively influenced in their decision making especially in subject choice. This study revealed that there is significant relationship between school climate and students' subject choice.

Over the last two decades, educators and researchers have recognized that school climate reflects subjective experiences in school. Cohen (2006) stated that sustainable, positive school climate fosters youth development and learning that is necessary for a productive, contributing and satisfactory life in a democratic society. It is in a school that a learner acquires norms, values and expectations that support people feeling socially, emotionally and physically safe. A negative school climate on the other hand would deter the development and learning that ought to be in a learning environment.

Other scholars associate positive school climate with high academic achievement and healthy behavioral outcomes for students (Brand, 2003). However, despite the growing body of evidence of the researches that have been done as revealed by above findings, there is still a need to establish whether there is significant relationship between school climate and other constructs such as student's decision making to other matters that pertain to their academics. Some of these matters include choosing subjects that students pursue to be examined at the end of four years of high school and later pursue a career path in the colleges and universities.

The study at hand sought to establish whether there is significant relationship between school climate and students' subject choice. There are many variables that form school climate as stated earlier. Most of the studies done have been on student's achievement, interpersonal relationships and connectedness to school. This study focused on four out of the several constructs enlisted by scholars as elements of school climate. This included principals' instructional leadership role, Teachers' support and care, Students'

involvement in learning, availability and maintenance of physical facilities and learning resources and students' subject choice.

A principal is the most important and influential individual in any school. He or she is responsible for activities occurring in and around the school buildings. It is the principal's leadership which sets the force of the school, the climate for teaching, the level of professionalism and morale for teachers and the degree of concern for what students may or may not become. Principals play a key role in molding the climate of the schools. Deal and Peterson (1990) stated that school leaders are models, potters, poets and healers of shaping a school climate. Indeed a school's climate is the reflection of the principals' leadership. UNESCO report (2015) on education, revealed that their 6^{th} goal was on improving in all aspects of the quality of education and ensuring excellence of all so that recognized and measureable learning outcomes are achieved by all, especially in literacy, numeracy and essential life skills (UNESCO, 2015). This means that the principal as an instructional leader would be instrumental in enhancing the achievement of such international goals at school level, where students learn decision making skills among others. This being the case, there's need to determine whether principals' instructional leadership role has significant relationship with students' subject choice. This is the gap that the study filled in regard to principals' instructional leadership role.

Principal's instructional leadership role refers to the actions that a principal takes or delegates' to others to promote growth in student learning (Debevoise, 1984). These actions include tasks such as defining the purpose of schooling, setting school-wider goals, providing the resources needed for learning to occur, supervising and evaluating

teachers, coordinating staff development programmes and creating collegial relationships with and among other teachers (Wildly & Dimmock, 1993). However, studies done reveal more on principal's characteristics and their influence on school climate.

A study done by Glosman (1984) revealed that principals' characteristics can influence the school climate of a secondary school. This is because the values and beliefs of the principal have influence on the vision of the school as well as their behaviors. Greenfield (1991) also stated that the principals' moral orientation is important to understand because it affects everything the principal does on daily basis. For example, their beliefs about student's ability to learn and teachers' ability to teach affect their leadership behaviors and that of learners. This to a great extent may therefore influence a learner's decision on pertinent issues such as subject choice in their academic journey and teachers' activities in an institution.

However, teachers' support and care play a crucial role in determining the climate of a school. There have been a lot of researches done on how students perceive school climate on their psychological, social and academic adjustment. Scholars such as Kuperminc, (1997) and Roeser (2000) who used the principles of ecological theories, have asserted that student's experiences that meet the developmental needs of adolescence, for example interpersonal support affect not only their academic adjustment but also their sound and emotional well-being. Split (2012) examined the relationship between teacher support, life stress and behavioural outcomes in 103 youths, results revealed a significant interaction between teacher support and life stress, indicating teacher support moderated

the effect of stress on externalizing problems. Teachers sound support facilitate positive outcome for students faced with risks.

Teachers care on the other hand is paramount in a student's life. Teachers perceived to be caring tend to endorse different orientations towards classrooms management and establish distinctive types of classroom climates and activities. Turner *et al* (1998) asserted that teachers perceived as caring tend to monitor the emotional climate of the classroom especially where students are annoyed or frustrated. Willower, Eidell, Hoy (1976) made some observations by stating that caring teachers have humanistic orientations towards classroom management. Unlike the uncaring teachers who yell at students at any instance to anger, caring teachers have connectivity with students. This situation supports there should be a relationship thus the need to establish whether there is any relationship between teachers' support and care and students' subject choice. This is the gap that this study filled in regard to teachers' support and students' subject choice.

World Bank (2005) observed that Educators all over the world are frustrated with the challenges of how to motivate the ever increasing number of students in secondary schools, who at entry are psychologically, socially and academically unprepared for the demands of secondary education. A report by UNESCO (2015) on education reveal that at lower secondary education level, 87 of the 105 countries with data had a pupil/teacher ratio below 30:1.This means the teachers in such countries may not be able to give total support and care to students effectively because of the high population. Such students are said to exhibit behavior such as tiredness, hostility and unrealistic aspirations. Educationists have a great role to play in enabling students become academic achievers.

Teacher's support and care may not be the only construct that relate with a students' decision on subjects. Students' involvement in the learning process and decision making in an institution is very important.

Students' involvement in the management and learning process in an institution contributes greatly to a harmonious learning environment because when their voice is supported, they become partners in their education. Education stakeholders, teachers, counselors and school administrators need to believe that students' needs are important and that their attitudes, beliefs and behaviors are key to their success in school. Thus, they must find an organized way through which the system incorporates them and become an integral part of the problem-solving process. By promoting meaningful student involvement, schools can prepare students for a lifetime of significant participation in their communities and nation (Fletcher, 2003). They are trained on leadership and how to make worthwhile decisions in their lives and that of people around them. Similarly, students are able to communicate on time to the leadership on any concern that arises on subject choice thus prompt solutions. When students are not involved in management and learning process in school, it takes long before the leadership discovers a concern and it may be too late to resolve the damage caused in the learning process. The study sought to establish whether there was significant relationship between students' involvement and their subject choice.

A report from World Bank (World Bank, 2005) shows that one of the main challenges facing countries around the world is to prepare their young people to become active citizens, to find employment in constantly changing work- place environments and to

cope with and respond to change throughout their lives. Countries need to respond to that challenge with approaches that are appropriate to their capacities and long term development objectives. Secondary curriculum is formulated based on such objects. School climate determines the success of implementation of curriculum and therefore, it also enhances student's academic decisions. This enables the students to pursue career paths that enable them become active citizens. The success of curriculum implementation is determined by not only the availability of physical facilities and resources but also how well they are maintained among other factors.

Maintenance of physical facilities and learning resources play a crucial role in the learning of the student. Neil (2000) observes that school facilities design, physical building conditions and overcrowding impacts student achievement and behavior. School officials must not only deal with the students in the prevention of misbehavior and violence, but also on the physical nature of the school's building (Kennedy, 2003). Along with behavior and attendance, morale plays crucial roles in the learning environment. Studies reveal that the surroundings in which people function can greatly impact moods, satisfaction and self-worth (Ma & Macmillan, 1999) and especially for students in secondary schools who are expected to make decisions on the subjects to pursue. The study sought to examine the extent to which availability and maintenance of learning facilities and resources had significant effect on students' subject choice in public secondary schools.

From the studies quoted above, one can assert that a relevant secondary education curriculum should have a strong bearing on the aspect of development of human capital.

Students' subject choice has a strong bearing on this aspect of human endeavors. This call for informed planning that creates an enabling environment in schools. Secondary schools must have positive school climate that positively influences student's decision making especially on subject choice. There are guidelines on the number of subjects that students are expected to pursue at different stages of their learning in Kenyan public secondary schools.

Upon admission to secondary school in Form One students' are exposed to a curriculum that has been stipulated by Kenya Institute of Curriculum Development (KICD, 2007). Students may choose the subjects to pursue in the four year course in Form One or Two depending how the school has programmed the subjects in the time table. Most schools are only able to offer 13 or 15 subjects upon which the students make the final choice and remain with a minimum of seven or maximum of nine subjects in Form Three (KNEC, 2012). Table 1 shows the groupings of the subjects.

Table 1:

K.C.S.E. Subject Choice

Option A	**Subjects**	**No. of choice**
Group 1	English, Kiswahili and Mathematics	Compulsory
Group 2	Biology, physics and chemistry	Two choices
Group 3	History and government, CRE, IRE, HRE	One choice
Group 4	Home Science, Art and Design, Agriculture, Woodwork, Metal Work, Building Construction, Power Mechanics, Electricity, Drawing and Design, Aviation Technology, Computer Studies	One choice
Group 5	French, German, Arabic, Kenya Sign Language, Music and Business Studies	One choice

The choice of subjects is to a large extent controlled by schools' programmes which have categorized the subjects into options. The school's mission, vision or motto forms the bases of the subjects given greater priority compared to others but putting in to consideration KICD and KNEC guidelines on subject choice. There are many factors that influence students' subject choice as revealed by several studies. This includes parents, school traditions, religious beliefs and government policy. However, there is no study that has been conducted to establish whether there is any relationship between school climate and students' subject choice. The study sought to fill this study gap, by establishing whether there is any significant relationship between school climate and students' subject choice in Nairobi County.

1.3 Problem Statement

Students' subject choice has been a great problem to administrators of Public secondary schools because the demand for secondary education has been greater than the available physical facilities and learning resources. In a bid to solve this problem, programmes that control students' subject choice have been created in many public secondary schools in Kenya. Most public secondary schools are only able to offer 13 to 15 subjects from which the students make choices of subjects to pursue in Form Three and Four. The problem of having lesser exposure to subjects jeopardizes the students' future career path. The more a learner is exposed to a wider curriculum, the greater the number of career paths opportunity from which they can choose a path to pursue. Most of the students who did subjects that were not their choice in secondary schools ended up scoring very low grades that could not give them access to the public universities or the tertiary institutions. As a

result of this, majority are idle, others try to get livelihood by engaging in hooking activities. This can evidently be traced in the streets and Estates of Nairobi County.

Kenya National Examination Council requires that candidates do a minimum of seven subjects and a maximum of nine which are examined at the end of the fourth year in secondary school. These subjects are grouped into five from which the subjects are chosen as guided by KNEC rules. In order to fulfill these demands, most of the principals establish rules that limit the students to choosing subjects that can be offered within the available learning facilities and resources in the school while at the same time observing the guidelines from KNEC. The set rules of subject choice in schools make the students find themselves with very limited input to choice of subjects of their interest based on their career aspirations. This has led to great waste of potential future human resource hence would have negative impact to the future of Kenyan economy.

A school that does not have a learning environment that exposes students to a wider curriculum causes the students to choose some subjects at the expense of others. For example, some schools do not have the capacity to offer all the sciences while others do not have the capacity to offer all humanity and creative art subjects due to shortage of resources. A school that would expose students to wider curriculum would be interpreted to having a positive school climate while one that does not would be said to have a negative school climate. Many studies have been conducted on factors that influence choice of specific subjects in secondary schools. Apart from facilities and resources, research findings reveal that interest, career aspirations, parental advice and job markets are the major factors that make students choose subjects. Despite this, formal education

systems in the world require students to choose subjects that they would pursue at a given level of education. For some students, the passage is smooth but most of them make inappropriate choices based on inadequate knowledge and distorted perceptions. Most studies conducted on school climate have been on student's achievement, interpersonal relationships and connectedness to school. However, despite the growing body of evidence of the researches that have been done, there has been a study gap on issues that pertain to the relationship between school climate and students' subject choice. The study sought to fill this gap, by establishing whether there is significant relationship between school climate and students' subject choice. The study findings revealed that there is significant relationship between school climate and students' subject choice at a p-value of.041.This was less than the level of significance of .05. This statistically implies a significant relationship between school climate and students' subject choice.

1.4 Purpose of the Study

The purpose of this study was to establish the relationship between school climate and students' subject choice in Nairobi County, Kenya.

1.5 Objectives of the Study

The study was guided by the following objectives:

i) To establish the relationship between principals' instructional leadership role and students subject choice in Public secondary schools in Nairobi County, Kenya

ii) To determine the relationship between teachers' support and care and students' subject choice, in Public secondary schools in Nairobi County, Kenya.

iii) To establish the relationship between students' involvement in learning process and subject choice in Public secondary schools in Nairobi County, Kenya

iv) To examine the extent to which availability and maintenance of learning facilities and resources affect students' subject choice in public secondary schools in Nairobi County, Kenya.

1.6 Research Hypotheses

The study sought to find determinations to the following hypothesis in order to establish whether there is significant relationship between school climate and students' subject choice:

H01

Principals' instructional leadership role has no significant relationship with students' subject choice in public secondary schools in Nairobi County.

H02

Teachers' support and care has no significant relationship with students' subject choice in public secondary schools in Nairobi County.

H03

Students' involvement in learning process has no significant relationship with students' subject choice in public secondary schools in Nairobi County.

H04

Availability and maintenance of learning facilities and resources have no significant effect on students' subject choice in public secondary schools in Nairobi County.

1.7 Significance of the Study

The study on the relationship between school climate and students' subject choice in public secondary schools in Kenya provides additional knowledge in the field of education which is expected to be used by researchers to develop theories on school climate.

The findings is expected to benefit the principals who could formulate programmes that can create positive school climate or improve on it if existing. This would enhance student's ability to choose subjects freely.

The study findings is expected to be used by training institutions such as KEMI to sensitize the principals on the need for a positive school climate that enhances students' subject choice. This would be handy in improving skilled management within the institutions.

Kenya government through the Ministry of Education, Science and Technology could use the findings to formulate or improve ways of measuring or assessing school climate. Such measurements would provide useful data on the schools' areas of strength and areas to improve on. This would ensure that institutions of learning implement state guidelines and maintain a positive school climate for students and staff.

The government through the Ministry of Education, Science and Technology could also use the findings to formulate more policies in education.

1.8 Limitations of the Study

Limitations of the study included the following;

i. The questionnaire prepared was for students in Form Three because it was assumed that all the secondary schools follow the requirement from the curriculum developers

(KICD) which requires that students choose subjects of specialization and pursue them in Form Three and Four then be examined by KNEC. The responses required did not cater for the stage at which the subjects were chosen. This limitation was on the Form Three students who had chosen the subjects. Some schools have a programme where students choose the subjects in Form One on admission, others in Form Two in the second or third term while others choose on admission in Form One. The method used to calculate instrument validity and reliability on the relationship between school climate and students' subject choice took care of this variation at a margin error of 0.05

ii. School climate is broad and may be categorized to different aspects of a school. However, this study was limited to principals' instructional leadership role, teachers' support and care, students' involvement in learning and maintenance of learning facilities and resources. To enable inference of findings, the instrument's validity and reliability were tested and improved where required before the actual field study was carried out.

1.9 Delimitation of the Study

i) The study was carried out in Nairobi County, Kenya. This was deemed appropriate for the study since it has more public secondary schools which include all the categories; National secondary schools, County secondary schools, districts-day, boarding and mixed secondary schools. This enhanced inference of the findings because the population of study was wide enough compared to the other 46 counties.

ii) The study targeted the Head of academic department and not all the Heads of other departments in public secondary schools in Kenya. This may have been a challenge especially in schools where the Head of academic department was absent. However, the Heads of subjects were given the research instruments in such cases because they are the immediate assigned agents by TSC in case of absence of Head of academic department.

1.10 Assumptions of Study

The following assumptions underpinned the study. Assumptions are so basic in a study that, without them the research problem itself could not exist (Leedy & Ormrod, 2010).

i) The assumption was that the respondents would answer all the items in research instruments with honesty.

ii) That all the respondents under study were available in all the public secondary schools in Nairobi County.

1.11 Justification of the Study

The study was on establishing whether there is a significant relationship between school climate and students' subject choice. Many studies have been conducted on factors that influence choice of specific subjects in secondary schools. Apart from facilities and resources, research findings reveal that interest (Oakes, 1990), students' ability (Ainley & Daly 1997), career aspirations, parental advice and job markets are the major factors that make students choose subjects (Ainley, Jones & Navaratnam, 1990). Most studies conducted on school climate have been on student's achievement, interpersonal relationships and connectedness to school (Austin, *et al,* 2011, Cohen, *et al,* 2010).

However, despite the growing body of evidence of the researches that have been done, there has been a study gap on issues that pertain to the relationship between school climate and students' subject choice. The study sought to fill this gap, by establishing whether there is significant relationship between school climate and students' subject choice. The study findings revealed that there is significant relationship between school climate and students' subject choice at a p-value of .041. This was less than the level of significance of .05. This statistically implies a significant relationship between school climate and students' subject choice.

The target population of the study was derived from the 79 public secondary schools in Nairobi County. It was deemed to be the most appropriate County out of the 47 because it is a metropolitan city which includes all tribes of the country. The level of development is considered higher thus most public secondary schools would enable data collection of the variables under study. It had 41,337 students, 79 principals and 316 heads of academic department. Form three students were 10,920 (MOE 2011) and were the most appropriate student population for data collection because they were the most immediate students who had selected their subjects. It was assumed that every public secondary school follows the guidance from KICD and KNEC which allows students to pursue a minimum of seven and maximum of nine subjects in Form Three until they do the final national examination in Form Four. Categories of schools included National secondary schools, County secondary schools, District day secondary schools and District boarding secondary schools. However the category of school was not a consideration in the study.

1.12 Definition of Terms

Significant terms were defined as used in the study:

Head of department	Teachers entrusted with the role of coordinating curriculum implementation in the department. In this study it included co-ordination of subject choice in academic departments.
Principals' instructional leadership role	Actions that a principals take to promote learning that influences subject choice
Public schools	Secondary schools funded from the public coffer.
School category	Referred to National boys or girls secondary schools, County boys or girls' secondary schools and District boys or girls' secondary schools in Nairobi County. They are either boarding or day secondary schools for boys or girls or mixed boys and girls public secondary schools.
School climate	The quality and character of school life. It reflects norms, goals, values and interpersonal relationships, learning resources and facilities. In this study it was limited to principals' instructional leadership role, teachers' support and care, Students' involvement and availability and maintenance of learning facilities and resources.
School size	Number of students enrolled in a public Secondary School.
Students' involvement	The process of allowing students participant in their learning process, decision making and subject choice.
Students' subject choice	The proportion of student's subject choice among the three categories of Science, Humanity and Creative arts.
Teachers' care	Ability of a teacher to connect with learners individually, motivate them to make the right subject choices despite academic ability and shares about their personal life experiences.
Teachers' support	Teachers' fairness, empathy, helps and respect that a teacher gives to a student.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The purpose of this chapter was to review relevant literature on school climate and students' subject choice. Principals' instructional leadership role, teachers' support and care, students' involvement in learning, availability and maintenance of learning facilities and resources are the constructs that were discussed as the variables of the study. Theoretical and conceptual framework was also discussed.

2.2 School Climate

2.2.1 Historical Review of School Climate

The historical review of School climate shows that school climate is derived from organizational research (Van, 2005). Researchers such as Pace and Stern (1958) made organizational climate a central variable in educational research. A few years later, school climate was viewed as the organizational personality of the school concentrating on the social interventions of teachers and school administrators (Halpin, 1966). By the end of the 1970s, school climate researchers concentrated on analyzing the schools social systems and cultural dimensions (Van, 2005). The school ethos was the primary factor for describing school differences in school achievement.

School climate have been defined by many scholars as the feelings and attitudes that are elicited by a school's environment. It is a multidimensional construct that includes physical, social and academic dimensions. The physical dimension includes; the appearance of the school building and its classrooms, school size and ratio of students to

teachers in classroom, order and organization of classrooms in the school, availability of resources, safety and comfort. The social dimension includes; quality of interpersonal relationships between and among students, teachers and staff, equitable and fair treatment of students by teachers and staff, degree of competition and social comparison between students and degree to which students, teachers and staff contribute to decision-making at school. Academic dimension includes; quality of instruction, teacher expectations for student achievement, monitoring student progress and promptly reporting results to students and parents Epstein and Partland (1976), Haynes, Emmons and Comer, (1993) and Sinclair (1970). Researchers admit that it is difficult to provide a concise definition for school climate, however majority agree on the above enlisted constructs. The objectives formulated in this study catered for the three dimensions of school climate.

Despite a unified Global view of some aspects of school climate, scholars have personal perspectives based on researches that have been done. Howard (1974) in a study on school climate improvement, defined climate as the aggregate of social and cultural conditions which influence individual behavior in the school. Hempton (1973) holds that organizational climate influences motivation of members. He points that the capacity to influence organizational climate is the most powerful leverage point in the entire management system. Owens (1970) asserts that leaders or managers are critical determinate of organizational climate through their leadership styles. Cohen (2006) says that school climate reflects subjective experience in school. Over the last two decades, educators and researchers have recognized that there are complex sets of elements that make up school climate. A review of research, practitioner and scholarly writings suggests that there are ten essential dimensions that color and shape subjective

experiences in schools (Cohen, 2006, Freiberg, 1999). These include; environment, structure, safety, teaching and learning, relationships, sense of school community, morale, peer norms and school-home community.

School climate research shows that safe, supportive, engaging and helpfully challenging schools are associated with predictive positive youth development, effective risk prevention efforts and increased academic achievement as well as teacher retention (Cohen, 2006). These findings shows that a school will either have a positive or negative school climate. A positive school climate enhances effective implementation of formal curriculum and enables students' exposure to a variety of subjects that would lead to vast career choices in future. That is why school climate should have a shared vision and plan for promoting, enhancing and sustenance.

Freiberg and Stein (1999) described school climate as the heart and sound of the school and the essence of the school that draws teachers and students to love the school and to want to be a part of it. Wang, Haertel and Walberg (1997) carried out a meta-analysis study which further emphasized the importance of school climate. The findings showed that school culture and climate were among the top influences in effecting improved student achievement. Their study also found that state and local policies, school organization and student demographics exerted the least influence on student learning. From these findings, it is clear that school climate plays a great role in students' life in school. However the studies done reveal there is a relationship between school climate and students' academic achievement or interpersonal relationship but does not include subject choice. This leaves a study gap and it is on this premise that the study sought to

establish whether there is significant relationship between school climate and students' subject in order to fill this gap. The findings revealed that there is significant relationship between school climate and students' subject choice at a p-value of .041.

2.3 Students' Subject Choice

Globally, there are set goals of education in every country that meet the needs of the nation as formulated in the set objectives that are referred to for development of a curriculum for every level. Apart from the requirements set, there are various factors that influence students' subject choice. A study done on factors influencing young people in education about STEM subject choices in UK revealed that there were four reasons for taking certain STEM subjects (Math, Sciences, Physics or/Chemistry); usefulness, ability and complimentary between subjects. It further revealed that young people had three main reasons that made them not to choose certain STEM subjects, difficulty of subjects and lack of Interest/enjoyment (Institute of Education UK, 2006).

A study done on students' subject choice in year 12 in Australian secondary schools revealed that the subjects chosen and studied in the senior secondary years have a major influence upon the educational and career options available to young people when they leave school (Ainley, 1990).This study reveals that among other factors, the choice of subjects in students' life is very important. The findings of the study at hand contributed greatly on this phenomenon because it revealed that there is significant relationship between school climate and students' subject choice in public secondary schools in Kenya, thus filling the gap.

In Kenyan secondary schools students are expected to be exposed to a broader curriculum as much as possible in order to create more paths for career choice. Students are expected to choose a minimum of two sciences, take all the compulsory subjects-Mathematics, English and Kiswahili and two other subjects from the other groups of subjects as shown in Table 1.Option B requires students to do general science (KNEC, 2012).

2.3.1 Genesis of Students' Subject Choice in Public Secondary Schools in Kenya

When Kenya attained independence in 1963, the immediate challenge for the education sector was to formulate policies that would guide it in delivering on human resource needs of the new state. The government set up commissions and task forces that were going to address challenges facing education. Kenya Education Commission of 1964 was assigned the task setting objectives and make recommendations for a relevant curriculum for the newly independent state (Republic of Kenya, 1964). The curriculum developed was geared towards subjects that directly linked to economic activities of the country such as agriculture. This was to boost the agricultural sector and foreign languages for the hospitality industry. It also enhanced capacity building for Kiswahili teachers in order to enhance teaching of Kiswahili in schools (Republic of Kenya, 1972). However, as the country kept growing, economic, social and political needs kept varying thus educational needs kept changing.

Gachathi Committee was appointed in 1975 to review educational policies and objectives. Releasing its report in 1976, the Gachathi report emphasized on the need to expand access, equity and retention rates at basic education level as a means to improve the quality of education (Republic of Kenya, 1976). At secondary level, the committee

proposed adoption of a science oriented curriculum and an end to hiatus that existed between technical and secondary schools, in a bid to emphasize a technologically oriented curriculum. Students were encouraged to pursue science subjects and at the same time have a language subject and humanity. Despite these changes, educational demands kept increasing.

In 1981, the Presidential working party on second university in Kenya (Mackay Report, 1981) was established. It made recommendations that led to the review of the structure of education system thus changing from seven years of learning in primary, four years of learning in secondary, two years of learning in high school and three years of learning in university (7, 4, 2, 3) to eight years of learning in primary, four of learning in secondary and four years of learning in the university (8, 4, 4). This was adopted and implemented in 1984, but since every curriculum formulated must always be assessed, the commission of inquiry into the education system of Kenya (Republic of Kenya, 1999) commissioned Kenya Institute of Education (KICD) to conduct a needs assessment on the secondary curriculum. This led to the revision of the curriculum in 2002. The revised curriculum was expected to be manageable, provide the youth with requisite knowledge skills and attitudes, be acceptable to the Kenyan and International communities, promote Nationalism and Patriotism and prepare Kenyans for challenges and opportunities of the 21st Century. The revision was a landmark policy decision that led to the reduction of subjects from 36 subjects to 26. This included Mathematics, English, Kiswahili, Biology, Physics, Chemistry, History and Government, Geography, Agriculture, Business studies, French, German, Arabic, Home Science, Music, Art and Design, Computer studies, physical Education, CRE, IRE and HRE (KIE, 2004, 2005, 2007). Students could choose

subjects as shown in Table 1 for option A or as shown in Table 2. Students were given option B where they would choose general science instead of pure sciences. Table 2 shows the grouping of option B. Schools that had students who opted for option B were not required to select pure sciences.

Table 2:

Option B Subject Choice

Option B	**Subjects**	**No. of Choice**
Group 1	English, Kiswahili and Mathematics	Compulsory
Group 2	General Science	Compulsory
Group 3	History and Government, Geography CRE, IRE, HRE	One choice
Group 4	Home Science, Art and Design, Agriculture, Woodwork, Metal Work, Building Construction, Power Mechanics, Electricity, Drawing and Design, Aviation Technology, Computer Studies	
Group 5	French, German, Arabic, Kenya Sign Language, Music and Business Studies	

(KNEC 2012)
Students select the sixth and seventh subjects from groups III, IV or V.
(K.C.S.E guidelines, 2011).

Secondary education in Kenya is the second level in the formal education system and caters for the age groups of 14-18 years within the school system (M.O.E 2005 – 2010 support programme). Once admitted in form one; students are exposed to a curriculum that has been stipulated by Kenya Institute of Curriculum Development.

The total numbers of subjects in secondary education curriculum are twenty six, however, secondary schools are not able to offer the maximum number due to limitations of physical facilities, teaching and learning resources (KICD, 2011). Most schools are only

able to offer 13 or 15 subjects upon which the students do the final choice and remain with seven, eight or nine subjects in Form Three. The choice of subjects is to a large extent controlled by school's programmes which have categorized the subjects into options. Kenya National Examination Council requires that candidates do a minimum of seven subjects and a maximum of nine (KNEC, 2012).

Students' subject choice has been a great problem to administrators of secondary schools because the demand for secondary education has been greater than the available physical facilities and learning resources. In a bid to solve this problem, programmes that control subject choice have been created in many schools. (Eshiwani, 1983) In some secondary schools, apart from the compulsory subjects – English, Kiswahili and Mathematics students are directed to classes offering option subjects randomly upon admission in Form One. Others choose optional subjects towards the end of Form One while others choose towards the end of Form Two. Secondary educational is quite demanding in terms of curriculum implementation but it is one of the most crucial stages of education because it is at this stage that career paths are established. No wonder the great determination of the Kenyan Government, to envision educational objectives in the social pillar.

In Vision 2030, the objective of the social pillar is to invest in the people of Kenya in order to improve the quality of life for all Kenyans by targeting across-section of human and social welfare projects and programmes specifically in education and training (MOE, Vision 2030). This implies that irrespective of the cost of education in secondary schools, positive school climate should be a priority so that students are able to choose subjects that expose them to wider career opportunities both in local and international market.

Article 43, 53, 55 and 56 of Vision 2030 stipulates that every person has a right to free and compulsory basic education. Therefore every Kenyan child is expected to be exposed to secondary education that enables them to choose subjects that would expose them to wider career paths. However, there are many challenges facing countries all over the world.

A report from World Bank (2005) revealed that the main challenge facing countries around the world is to prepare their young people to become active citizens, to find employment in constantly changing work place environments and to cope with the respondent to change throughout their lives. World Bank report emphasized that countries need to respond to that challenge with approaches that are appropriate to their capacities and long term development objectives.

UNESCO report (2016) shows that we must fundamentally change the way we think about education and its role in human well being and global development. Now, more than ever, education has responsibility to foster the right type of skills, attitude and behavior that will lead to sustainable and inclusive growth (Global Education Monitoring Report, 2016). In this case secondary education plays a crucial role thus whatever would enhance effective implementation of the curriculum should be highly valued because it affects the choice of subjects by the students. Positive school climate is paramount to this effect. The study findings revealed that there is significant relationship between school climate and students' subject choice. One aspect of school climate is the principals' instructional leadership role. Principals are managers of institutions of learning. In the process of carrying out their instructional leadership roles, they relate with the teachers, students and other stake holders. The study sought to fill the gap of establishing whether

there is significant relationship between their instructional leadership role and students' subject choice.

2.4 Principals' Instructional Leadership Role

A principal is the most important and influential individual in any school. He/she is responsible for all activities occurring in and around the school building. Debevoise, (1984) defines principals' instructional leadership as the actions that a principal takes or delegates' to others to promote growth in student learning. These actions include tasks such as defining the purpose of schooling, setting school-wider goals, providing the resources needed for learning to occur, supervising and evaluating teachers, coordinating staff development programmes and creating collegial relationships with and among other teachers.

The principals' leadership styles determine the climate for teaching, level of professionalism, the moral for the teachers and the degree of concern for students. If a school is vibrant, innovative, child-centered, has reputation for excellence in teaching, the principals' leadership is considered the determinant of such outcome (US Congress 1970).One way leaders influence organizations is by helping shape the climate of the organization. Principals play a key role in the effort to improve school climate (Thacker & Mclnerney, 1992). Deal and Peterson (1990) stated that school leaders are models, potters, poets and leaders of shaping school climate. This means that as they carry out their instructional leadership role, they are able to mold the students to become informed decision makers hence can make the right subject choice. The study findings revealed that principal's instructional leadership role has significant influence on students' subject

choice at Chi–square value of 30.153 and a degree of freedom of 16 at a p value of .017.These findings filled the gap of establishing whether principals' instructional leadership role had significant relationship with students' choice. This being one aspect of the social dimension of school climate further contributed to the findings of the study. Tarter and Hoy (2006) asserted that a school's climate is the reflection of the principal's leadership. This means that a principal with poor leadership will negatively influence school climate while the one with good leadership will positively influence it. Studies done reveal that principals' influence has indirect effect on learning and is mediated by interacts with others, situational events and the organization and cultural factors of a school (Leithwood, Louis, Anderson & Wahlstrom, 2004). Similarly they can influence the decisions that students make during their school life depending on whether the climate is positive or negative. This study revealed that there is significant relationship between principals' instructional leadership role and students' subject choice. Instructional leadership is one of the many aspects of the principals' leadership role.

Principals as managers of schools are critical determinants of the school climate through their leadership styles (Owens, 1970). In his study involving secondary school principals, Gibbon (1976) observed that there was a significant relationship between leadership styles and organizational climate. Further, Glasser (1973) pointed out that improvement in the work climate frequently leads to greater productivity as well as greater job satisfaction. When workers in a school are satisfied, the learners are taken care of and they mature as all round students who become very responsible members of the society. Great efforts have been put to enhance academic excellence all over the world. However, studies done on school climate have revealed how important this phenomenon is for the

development of the leaner's ability to make decisions. Decision making is a very important life skill in a student's life. It is nurtured within enabling environments and these are only available where there's positive school climate. Positive school climate would enhance students' ability to make the right choice on the subjects to pursue. School climate is an end product of the principals' leadership styles.

Owens (1970) and Gibbon (1976), affirm that school climate is to a greater degree an end product of the principals' styles of leadership. Thus it is possible for some schools to have positive school climates while others have negative hence influencing curriculum implementation and students' decision making. The two authors further observed that the climate of the school is important for the creation of effective learning environment. If a student feels alienated and disengaged from the learning contexts in school, his or her potential to master fundamental skills and concepts and develop effective learning skills is likely to be reduced. This is why it is crucial for principals to consciously create school climate that would motivate the students towards making decisions of subjects that would enable them have a wider choice of careers once they complete secondary education. The study findings revealed that principals' instructional leadership has significant relationship with students' subject choice. The study findings filled the gap that other study findings had omitted.

Principals also have the responsibility of ensuring that their schools have school climate that positively influences teachers to effectively implement the curriculum through their continuous support and care to students.

2.5 Teachers' Student Support and Care

Teachers are the implementers of the curriculum developed for students. They are the determinants of how they relate with students during learning. Teachers' support and care have been proved over the years to be the most effective aspect of a teacher's professionalism because students identify with teachers who care and support them. Researches on teachers' support define it as the amalgamation of teacher's care, fairness, empathy, helping, challenging and respect towards students (Education Research International, 2012). When a teacher is said to be supportive, it means he/she applies the above as defined. Teachers play a great role as members of the school community because most of the time in students' life is spent with a teacher.

Studies done by Deal and Peterson (1999) on school climate show that strong school climate have better motivated teachers who effectively implement formal curriculum. Teachers are the ones that teach the subjects that students choose. They play a key role in supporting reform of a school. They are the major implementers of the curriculum and facilitate other changes required to better a school. This means that they interact more with the students than any other person in a learning environment. Motivated teachers are able to support and guide the students. This means that in cases where student's need guidance the teachers are available for them especially on matters pertaining to subject choice since they know the students better. The study revealed that students chose subjects at a mean of 4.04 and standard deviation of 1.172 that were taught by teachers who offered extra time to help them.

In a study done examining the relationship between teacher support, life stress and behavioral outcomes in 103 youth, results revealed a significant interaction between teacher support and life stress, indicating teacher support moderated the effect of stress on externalizing problems. Teachers' sound support facilitates positive outcomes for children faced with risk. Teachers who support students are said to care, have empathy, trust, respect and fairness (Split, Hughes, Wu & Kwok, 2012). Teachers' support and care is one of the many factors that are considered when a school is said to be effective, thus having enabling environment for students' subject choice.

Levine and Lezotte (1990) said that there are nine characteristics that have been identified through studies done in school culture and performance, which make a school effective. Among these, is productive school climate and culture and faculty cohesion, collaboration, consensus communications and collegiality? Staff members have to work as a team to ensure a sense of unity and consistency in their relation with students. When this is effectively done, students enjoy great support and care. This study finding revealed that there is significant relationship between Teachers' support and care and students' subject choice.

Levine and Lezotte (1990) continued to assert that the commitment of staff members and the impetus for collaboration and communication has to be directed towards student achievement. Not only do staff members need to be committed to a shared and articulated mission focused on achievement but also a wide emphasis on recognizing positive performance is indispensable. Teachers need to have a problem solving orientation, a willingness to experiment and actively search for solutions that might

overcome obstacles in student learning, especially with respect to low achievers and students' ability to choose subjects. Teachers care is experienced as they assist the student to overcome these obstacles. Due to this great demand on the teaching profession, teachers need to be exposed to frequent training to enhance their efficiency.

Kombo (2006), in his work on teacher socialization, asserted that teachers' roles are critical in the teachers' socialization efforts. There is need to adequately educate, train and prepare teachers professionally so as to enable them to carry out the teaching activities satisfactory. The teacher and teaching activities in school are important and require the proper kind of facilitative support, will and power from society. If these are faulty or poorly provided, the society begins to blame the school organization and its components, because the teachers are not able to support and take care of the students. In the long run the students are disadvantaged in their choice of subjects in their schools.

Rutter, Manghan, Mortimore, Outon and Smith (1979) argued that teachers in schools form social groups with their own rules, values and standards of behavior, which they denote as the ethos of a school. Ethos reflects the teachers' expectations about children's work and behavior and the feedback that students receive on what is acceptable performance of school. Teachers have a great role in creating a positive school climate that can enable the students make the right decisions and in so doing students feel cared for and are confident to confine with their teachers when faced with challenging situations especially on which subjects to choose. However apart from the support and care that teachers may show students, the students need to be fully involved in their

learning because this enables them to be vast with the subjects they are learning hence can be able to make informed decisions on subjects to pursue.

2.6 Students' Involvement in Educational Process

Students' involvement is said to be the process through which students are engaged in every facet of the educational process for the purpose of strengthening their commitment to education, community and democracy. It involves recognition of the unique knowledge, experience and perspective of each individual student (Fletcher, 2003). Students' involvement in the management and learning process in an institution contributes greatly to a harmonious learning environment because when their voice is supported they become partners in their education. Stakeholders, teachers, counselors and administrators need to believe that students' needs are important and that their attitudes, beliefs and behaviors are key to their success in school. Thus they must find an organized way through which the system involves them as an integral part of the problem-solving process.

By promoting meaningful student involvement, schools can prepare students for a lifetime of significant participation in their communities and nation. They are trained on leadership and how to make worthwhile decisions in their lives and that of people around them. Each school should have a positive school climate to allow full involvement of students so that they can develop decision making life skills. This enhances their informed decision making on subjects to pursue in their academic journey. Meaningful student involvement in schools prepares students for a life time of participation in the communities and in a nation. Alfie (1993) in his book, choices for children, why and how

to let students decide, said that meaningful student involvement in school decisions has four distinct outcomes on school climate. It has effects on general wellbeing of students, effects on behavior and values, effects on academic achievement and effects on teachers. He continues to say that teachers and students must hold each other accountable for all their decisions and actions. He further says that through effective, empowering opportunities to use their voice, experience and knowledge to make meaningful decisions, all students can have ownership in their learning and investment to succeed. From this assertion, it is clear that students' involvement is crucial in their learning process and it involves a lot of decision making.

Huddleston (2007) stated that students' participation in decision making can lead to improved school policies and practices. It can support the successful development and implementation of school initiatives and strengthen democratic process within the school. Students' behaviour is improved within and this contributes positively to school and community environments. As they participate, better relationships between students, teachers, parents and wider community are facilitated due to improved understanding and responsiveness to issues identified by students. However despite the importance of students' involvement, it is also worth noting that maintenance of learning facilities and resources in an institution enhances effective involvement of the students in their learning process hence enabling them to make informed decisions in their choice of subjects.

2.7 Availability and Maintenance of Learning Facilities and Resources

The availability and quality of resource materials and appropriate facilities have a great influence on curriculum implementation (Republic of Kenya, 2010). Several scholars

such as Ayoo (2002), Eshiwani (1993) and Mutua (2002) in Kamau (2005) agree that school facilities such as classrooms, laboratories, desks and books have a direct bearing on good performance among students in developing countries. McAliney (2009) also agrees by saying that resources in education play a very important role in facilitating learning. Education resources include both teaching personnel and materials such as books and non book materials and any other learning environment that provides a learning experience to a learner. Education resources are therefore selected and used to stimulate interest and motivate learning. This being the case as revealed by studies done, there is need to have maintenance programme that would facilitate continuous availability of the facilities and resources so that students are exposed to wider scope of subjects. This literature is relevant to this study because it reveals the importance of facilities and resources in facilitating learning hence subject choice. All over the world, Governments of different countries take responsibility of providing the resources required for learning despite the quantity but the responsibility of maintenance is always on the principals as managers of the institutions.

Since implementation of free tuition in public secondary schools, the government of Kenya took the responsibility of investing in instructional material and textbooks (ROK, 2005). The government has continued to provide text books and other institutional materials for learners as the key tool for attainment of quality education. This enables teachers to deliver the curriculum using appropriate reference books for preparation of the lessons thus exposing the learner to a variety of subjects that they can choose subjects from. It also enhances learners to have textbooks irrespective of their geographical location or parents' economic ability among others (KESS, 2005). Students get motivated

to choose subjects that are performed well in KCSE and they also associate the availability of resources and facilities to the success. This has been proofed over and over by scholars. This study revealed that in schools that had enough facilities such as laboratories, students were able to choose subjects of their choice while in schools that had limited facilities, and principals had put down a criterion that allowed only limited number of students to choose that subject, students were limited in choice. This jeopardizes students' career path.

Eshiwani (1983) did a study on factors influencing performance among primary and secondary schools in western province of Kenya and established that schools with the best facilities performed well in KCSE. These facilities and resources are assumed to be well maintained in such institutions. Mwamwenda (1987) carried out a study on the effects of school physical facilities on performance on Standard Seven pupils in examination in Botswana and established that availability of facilities had direct impact on performance of pupils in examinations. The findings of Wamahiu, Opondo and Nyagah (1992) as cited by Salome (2004), supported this view. These scholars carried out a study on educational situations for the Kenyan – girl child and established that poor learning environment in unaided (*harambee*) schools, lack of laboratories and unqualified staff led to poor performance by the majority of students. This means that if these resources are not available, there may not be a plan for maintenance at all. It also means that students would be discouraged from choosing such subjects. This study finding revealed that there is significant relationship between availability and maintenance of leaning facilities and resources and students' subject choice.

The Ministry of Education Science and Technology (2003) technical working group in Kenya recognized the fact that the availability of educational materials leads to a major bearing on educational outcomes. These materials include textbook, equipments, library facilities, and furniture and students writing materials. The group pointed out that text books offer explicit instruction design formats. Therefore the availability of these materials has implications for immediate quality improvement in the educational system. The wellbeing of learners is of concern and for learning to take place effectively, school need to have adequate and appropriate physical facilities. The report on education man power training for the next decade and beyond (Republic of Kenya, 1988) recommended that schools be provided with physical and learning facilities. The master plan on education and training (Republic of Kenya, 1999) also recommended that, central government and local authorities should provide schools with physical facilities. Probably what need to be inclusive in this recommendation is on how instructional leaders should maintain the facilities in order to enhance positive school climate that enhances students' subject choice.

One aspect of school climate is that of provision of learning resources such as books and physical facilities. Heyneinan (1984) conducted evaluation of a textbook programme in Philippines introduced to raise national level of academic achievement among students in three subjects, Philippino, mathematics and science in two grades (Katana, 2007). The programme reduced the ratio of pupils per book per subject from 10:1 to 2:1 and this marked improvement in performance. This meant that more students would choose subjects that had the ratio of 2:1 compared to those with 10:1 ratio. This study finding agrees with this revelation.

Kenya's Sessional Paper No. 10 of 1996 noted that the immediate objectives of education are to expand secondary school level facilities rapidly as it was important for the training of manpower and accelerating Africanisation and increasing the proportion of candidate that continue with education. KNEC Report (2010), on factors that affected performance of 2009 KCSE examination, noted that many students have never seen the inside of a laboratory and the first time they encounter practical apparatus is in examination hall. They are also not allowed to experiment, discover and develop creative critical thinking skills required in the education system. This means that in most schools with such experiences, students would avoid subjects that require them to be in the laboratory except for the compulsory subjects. It also implies that such facilities are not maintained due to scarcity of the resources. As a result of this, students are not able to choose subjects of their choice. This concurs with the study findings.

Resources in education play a very important role in facilitating learning (Mc Aliney, 2009). It is difficult to envisage learning without resources. Education resources include both book and non-book materials, and any other learning environment that provides a learning experience to a learner. Education resources are selected and used to stimulate interest and motivate learning. That is why it is very important to not only have facilities and resources in a school but also maintain them continuously because teachers as implementers relay on them for effective implementation of the curriculum. This implies that student's ability to choose the subjects is affected by maintenance of learning resources and facilities. This study revealed that there is significant effect of maintenance of learning resources and facilities on students' subject.

Walton and Ruck (1975), argued that education resources should compliment but not replace the teacher. Consequently, the teaching methods have to be in feuded with the resources used. They further argue that the teacher's skills to structure the resources into meaningful learning experiences to achieve curriculum objectives are very important. This means that the teacher needs to be equipped with sufficient pedagogical and organizational skills on how to use resources effectively and efficiently. It may also imply that the decision of the students on subjects should not be deterred by the facilities and resource maintenance or availability because the leadership at hand should ensure they are not only availed but also maintained.

Verspoor (2008) noted that international research has consistently demonstrated the positive effect of textbooks on student learning, especially in secondary education. He argued that without an adequate supply of textbooks, students are unlikely to achieve expected levels of learning. He further indicates that the importance of textbooks and school libraries for effective secondary education is widely recognized. This means that maintenance of text books as learning resources would affect students' subject choice as revealed by these study findings.

Since 2003, the Government of Kenya has devoted a considerable amount of investment to construction of laboratories for all public secondary schools. The Vision 2030 recognizes the centrality of provision of education resources as a strategy of improving the quality of secondary education. Within the framework of the Vision, by 2015 the Government had planned to increase the textbook grant; encourage low book publishing; and establish and equip science laboratories in all secondary schools (Vision, 2030).

While efforts put in by Government machinery are appreciated, it is worth noting that the actual experience on ground for most public secondary schools is that they lack teaching and learning resources and physical facilities. That is why the study at hand was timely because it revealed there is significant effect of maintenance of physical facilities and learning resources on students' subject choice. This being the case, insufficiency and lack of maintenance of facilities and learning resources limit students from choice of subjects and the vise vase. This is the gap that this study filled.

Material resources are important for curriculum implementation and attainment of syllabus objectives because they have their unique role (Bishop, 1985). A variety of materials and approaches in teaching are necessary to enable the education system to produce graduates who are intellectually alert, able to explore and benefit from what their environments offers them (Thondhlana, 1998). This explanation of importance of learning resources shows that it is not possible to effectively implement a curriculum without the resources required or better put maintaining the available resources. No wonder then, in some public secondary schools, the principals are left with no other option than to create programmes that only allows a particular number of students to take some subjects.

Manguti (1984) did a study on factors affecting teaching and learning materials in Mbooni Division Machakos County, and found out that most schools have many difficulties as far as teaching and learning resources are concerned. Text books, support books, teaching aids and stationary are very important. Unavailability of funds limits the ability to maintain the available resources and this causes shortage of teaching resources.

This may limit the number of students that would want to choose particular subjects. The findings of this study is related to the study at hand because it reveals the real situation on issues related to learning resources thus one can infer from the findings. There are more studies that have been done that further supports Manguti's findings.

Lack of materials, shortage of teachers and finances are some of the problems cited to be facing the implementation of 8-4-4 curriculum (KIE, 1990). Availability of teaching and learning resources enhances the instructional process of the subject. When a school has fewer teachers than the number of students in a given subject, does this have any effect on students' decision on subject choice? Sifuna (1974) affirmed that teaching and learning resources are major determinants of the teaching-learning situation. From these findings, one can infer that even maintenance of the available resources would be a great problem hence affecting the students' ability to choose the subjects that require such resources because the school climate would not be enabling. The study finding filled this gap because it revealed significant relationship between school climate and students' subject choice. This implies that all the public secondary schools that did not have sufficient learning facilities and resources did not have a positive school climate hence affecting students' choice of subjects while the few that had, enabled the students' subject choice thus creating vast career paths.

Wanani (1991) stated that increasing enrolment without expanding the physical facilities results in over stretching of resources and consequently affects effectiveness in teaching and learning resulting to low academic achievement. Heymemann and Hoxley (1993) in their study on effect of availability of physical facilities on learning found out that the

presence of a school library, related significantly to achievement in Brazil, China, Botswana and Uganda. According to Lofthous (1990) a sound physical environment is reflected in the school amenities, decorative order and immediate surroundings hence a positive advantage to pupil's progress and achievement.

The task force on the Re-alignment of the Education Sector to the constitution of Kenya 2010 (M.O.E., 2012) recommended that the Government continues to reduce the cost of education to households through the provision of teachers, teaching and learning materials and grants to schools to cover operational and maintenance expenses under the Free Primary Education (FPE) and Free Day Secondary Education (FDSE) policy. This affirms the importance of facilities and learning resources in promoting school climate that enables students' subject choice.

2.8 Theoretical Framework

Beauchamp (1964) defined theory as the knowledge and statements that give functional meaning to series of events and can take the form of definitions, operational and constructs assumptions, postulate, hypothesis, generalization, laws or theories. Theoretical framework is a collection of interrelated ideas based on theories. It attempts to clarify why things are the way they are, based on theories (Kombo & Tromp, 2006). This study adopted principles of organizational theory because they were deemed relevant to the variables under study.

2.8.1 Organizational Theory

Organizational theory include the study of organizations for the benefit of identifying common themes for the purpose of solving problems, maximizing efficiency and

productivity and meeting the needs of stake holders (Richard & Daft, 2009). Organizational studies include examination of how individuals construct organizational structures, processes and practices and how these in turn, shape social relations and create institutions that ultimately influence people. These studies comprise different areas that deal with the different aspects of the organizations. Organizational theory was deemed applicable for this study because schools are institutions or organizations with different structures. The ideas and principles of organizational theory gave a foundation for this study because it was possible to apply them when establishing whether there is significant relationship between school climate and students' subject choice.

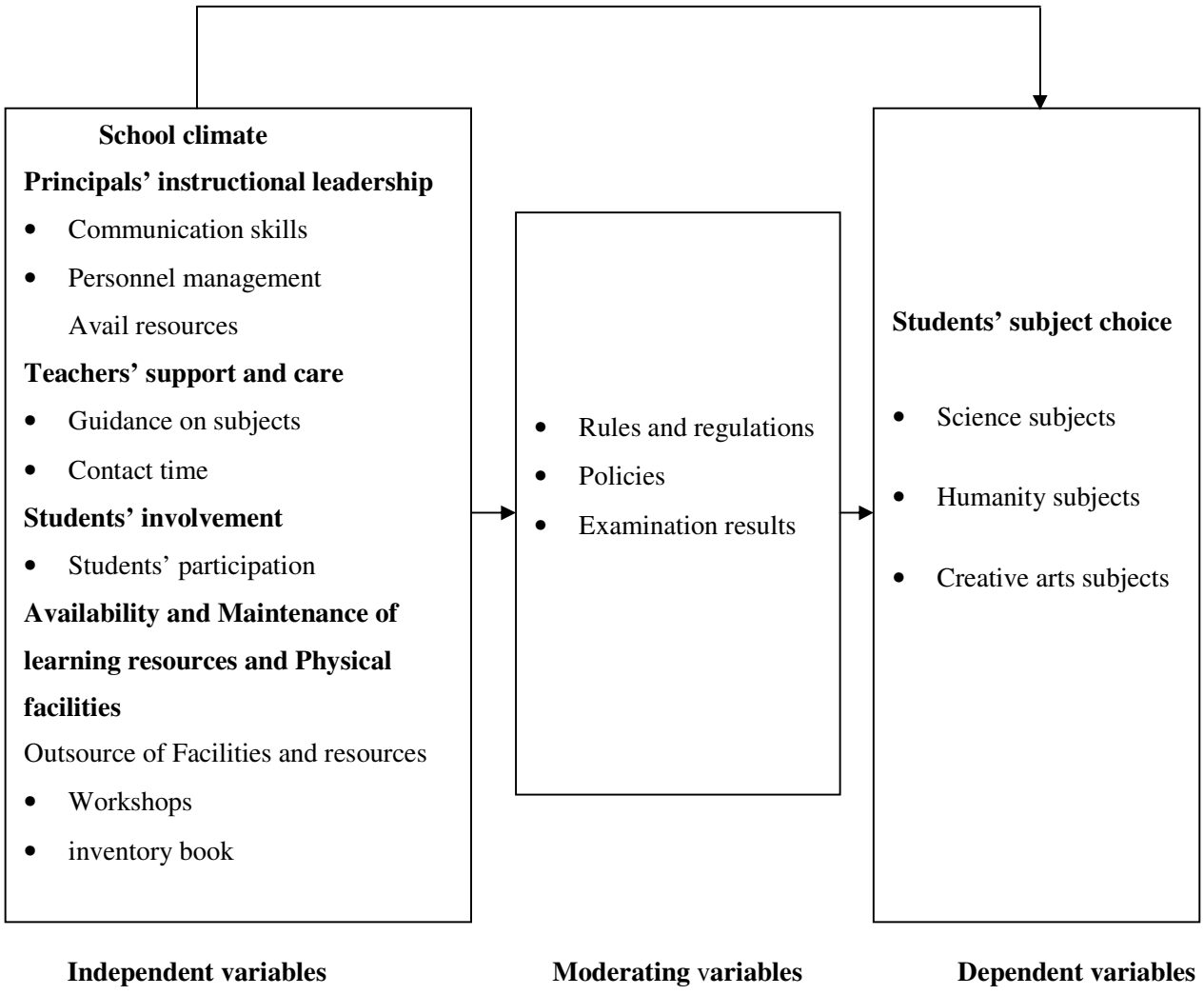
2.8.2 Tyler Model

Ralph Tyler explains in his model a rational for viewing, analyzing and interpreting the curriculum and instructional programme of an educational institution. He raises four fundamental questions which have to be answered if the process of curriculum planning is to proceed; what educational purposes should the school sake to attain? What educational experiences can be provided that are likely to attain these purposes? How can these educational experiences be effectively organized? How can we determine whether these purposes are being attained?

The ideas and principles of this model gave a foundation for this study because it was possible to apply them when establishing whether there is significant relationship between school climate and students' subject choice. A school is an institution where instructional programmes can effectively be implemented by answering effectively the

four questions raised by Tyler. Thus independent and dependent variable of this study interrelating positively.

2.9 Conceptual Framework



The study was on the relationship between school climate and students' subject choice in public secondary schools. It was conceptualized as follows; the Independent variable is school climate which included principals' instructional leadership, teachers' support and care, students' involvement in learning process and availability and maintenance of

learning facilities, and resources. Dependent variables included students' subject choice in public secondary schools. These subjects are categorized into Sciences, Humanities and Creative arts. The functioning and interactions of the components in a secondary school are controlled by guidelines. Moderating variables included MOE, KICD, KNEC and BOM. The guidelines and principles given by the moderating variables agents must be adhered to during the interactions of both independent and dependent variables.

The conceptual framework that underlined this study showed the relationship between the independent and dependent variables. Orodho (2004) stated that a model forms a simplified familiar structure meant to give insight into phenomena that one needs to explain. It is a way of relating factors that tend to influence a particular outline in a more pictorial or diagrammatic way. This is what the conceptual framework has explained in regard to this study.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter explains the methods that were applied in carrying out the research study. It includes research design, study population from which an appropriate sample size was selected, sampling procedures, research instruments for data collection, validity and reliability of data collection instruments and data analysis procedure.

3.2 Research Design

The study adopted descriptive survey research design. Mugenda and Mugenda (1999) define survey as an attempt to collect data from members of a population in order to determine the current status of that population with respect to one or more variables. Using this as a researcher enables description of possible behaviors, attitudes, values and characteristics. This design was the most appropriate for the study because it was possible to determine the status of the population under study in respect to the variables that were being tested to establish whether there was significant relationship between school climate and students' subject choice. The description of behaviors and characteristics of principals' instructional leadership role, teachers' support and care, students' involvement and availability and maintenance of learning facilities and resources was analyzed and the findings were used to infer. According to Glass and Hopkins (1984), descriptive research involves the researcher gathering data that describe events and then organizes, tabulates, depicts and describes the data. Lokesh (1984), affirmed this by saying that descriptive research studies are designed to obtain pertinent and precise information concerning the status of phenomena and whenever possible to use the

information to draw valid general conclusions from the facts discovered. By using this research design, the principles and methods applied enabled inference of the findings.

3.3 Target Population

Target population is the number of real hypothetical set of people, events or objects to which a researcher wishes to generalize findings (Borg & Gall, 2007). The target population of the study was derived from the 79 public secondary schools in Nairobi County. It had 41,337 students, 79 principals and 316 academic heads of department. Form Three students were 10,920 (MOE, 2011) and were the most appropriate student population for data collection because they were the most immediate students who had selected their subjects. It was assumed that every public secondary school follows the guidance from KICD and KNEC which allows students to pursue a minimum of seven and maximum of nine subjects in Form Three until they take the final national examinations. Nairobi County was deemed appropriate for the study because it has more public secondary schools which include all the categories; National secondary schools, County secondary schools, district-day and boarding and mixed secondary schools. The people in Nairobi County are from all tribes of Kenya thus representing the face of Kenya which has 42 tribes. Being a metropolitan city, it was assumed that public secondary schools in Nairobi would infer as a representation of public secondary schools in Kenya.

3.4 Sample Size and Sampling Procedure

3.4.1 Sample Size

A sample is a small part of anything which is intended to stand for or represent the whole (Wellington, 2008). Kombo and Tromp (2006) emphasize that the sample size must represent the target population in all aspects. Gay (1981) recommends 20 percent if the

target population is small as minimum sample size in descriptive research and 10 per cent if the target population is large (Gay, 1992).This means that for a small population 20% and above is acceptable. Nairobi County had 79 public secondary schools (MOE, 2011). For the purpose of this study, since the number of schools was small according to Gay's (1981) recommendation, the researcher used the sample size of 38 percent of the public secondary schools in Nairobi County which was 30 public secondary schools. All the thirty principals of the schools were included in the study. All the academic H.O.Ds, a minimum of four per school (Science, Language, Humanity and Creative arts) were also included in the study. Thus the total number of academic H.O.Ds in Thirty schools was 120.

The total number of students in 79 public secondary schools in Nairobi County was 41,337. Total number of students in Form Three was 10,920 (MOE, 2011). To calculate the sample size for Form Three students Cochran (1977) formula was applied as follows;

n o = T2 (p) (q) /(d) 2

n o - Sample size

T - Acceptable error 1.96

Pq - Estimate variance (0.5) (0.5)

d -Acceptable margin of error 0.05

The sample size is 384

This sample is workable for population more than 10,000 Cochran (1977). The number of Form Three students was 10,920. Thus from the above formula, the sample size of the students was 384, however to make it workable in 30 secondary schools in Nairobi County, 390 Form Three students were sampled purposively. This was acceptable within

the margin of error of .05. In order to get the sample size for the population of study, purposive sampling was applied to get the number of H.O.D's. Mugenda and Mugenda (2003) stated that the researcher can use cases that have the required information with respect to the study objectives. In this case the academic H.O.Ds had the required Information on students' subject choice and on teachers' student support and care. Cochran's (1977) formula was used to get 390 Form Three students. These were divided by thirty schools to get the number to be sampled for each school and this gave thirteen students per school. These were randomly sampled in each of the 30 public secondary schools. All the 30 principals and 120 H.O.Ds of academic departments were selected in the study. Simple random sampling procedure was appropriate for getting students population that was appropriate to the total population of the students in Form Three (Table 3).

Table 3:

Sample size: Summary Sample Size for Study

Category	Target population	%	Sample size
Schools	79	38	30
Principals	79	38	30
H.O.D	316	38	120
Form 3 students	10,920	-	390

3.4.2 Sampling Procedure

All the principals of the thirty sampled secondary schools were from the different categories of secondary schools. These were, National secondary schools, County secondary schools, Sub-County secondary schools found in Nairobi County. These schools were either for boys, girls or mixed. To get a sample that represented the target

population, simple random sampling was done by giving a number to every category of the thirty schools. These numbers were written on pieces of paper and then put in containers of same category, and then picked randomly (Mugenda & Mugenda, 1999). This process was repeated to get the thirteen Form 3 students for each of the thirty sampled schools. Pieces of papers were written numbers from one to thirteen. The students in the sampled schools were given to pick from the containers. Those with numbered papers were given the questionnaires. In each of the sampled schools, the principal, four heads of academic departments and Thirteen Form Three students were given questionnaires for data collection.

3.5 Research Instruments

To effectively explore the relationship between school climate and students' subject choice in Public secondary schools, data collection instruments were used to elicit both qualitative and quantitative data from the participants. The study used questionnaires for the principals, Teachers and Students. Gay (2011) maintains that questionnaires give respondents freedom to express their views or opinions and also to make suggestions. This instrument was deemed the most appropriate to solicit the data required because items that enhanced collection of data were developed according to the research objectives. Observation check list (3.5.5) was used to verify the respondent responses.

3.5.1 Questionnaires

Use of questionnaires is deemed applicable in this study because a questionnaire has the ability to collect a large amount of information in a reasonably quick space of time (Orodho, 2004). It translates research objectives into precise field questions and there by links the research results by becoming the means of obtaining data (Chandran, 2004). The

researcher used three questionnaires; for the principals, Teachers and Students. They were; open ended-this one is designed to encourage the respondent to give a full meaningful answer using the his/her own knowledge or feelings .Structured questionnaire encourages a short or single word answer. These questionnaires elicited both quantitative and qualitative data through the responses given by the respondents. Quantitative data included all the responses that were expressed in numbers or quantified while qualitative data is one that represent nominal scales.

3.5.2 Principals' Questionnaire

This questionnaire had two sections, A and B. Section A contained five items on demographic information. Section B contained twenty five items on availability maintenance of physical facilities and learning resources, teachers' turnover and students' subject choice .The questionnaires were both structured and open ended (Appendix B).

3.5.3 Teachers' Questionnaire

This had three sections A, B and C. Section A contained six items on demographic information. Section B contained seventeen items on principals' leadership and maintenance of physical facilities and learning resources and section C contained six items on Teachers' support and care. The questions were both structured and open ended (Appendix C).

3.5.4 Students' Questionnaire

This had three sections A, B and C. Section A had nine items, two on demographic information and seven on student's subject choice. Section B contains 10 items on Teachers' support and care. Section C contains eight items on principals' leadership and

maintenance of physical facilities and learning resources. The questions were structured (Appendix D).

3.5.5 Observation Checklist

To verify the responses of the respondents, the researcher had a formulated observation check list which had items that included learning facilities and resources. Every observed facility and resource was ticked against the list that contained the items. The list had two columns of maintained and unmaintained learning facilities and resources. Data collected was compared with respondent's responses and computed using SPSS version 18 to get frequencies, percentages and means (Appendix E).

3.6 Piloting Instruments

The instruments were piloted in order to establish the efficacy of each one of them. Pilot study was done in two schools out of the 79 public secondary schools in Nairobi County. Borg and Gale (2007) say that two or three cases are sufficient for sound pilot studies. The researcher administered questionnaires to the principals, Heads of academic departments and students. The items which did not measure the variables that were intended were modified or discarded completely and new items added (Mulusa, 1988). The questionnaires were appraised by senior lecturers from the School of Education in Maasai Mara University.

3.7 Instrument Validity

Instrument validity is the degree to which results obtained from the analysis of data actually represent the phenomena under investigation (Orodho, 2004). It is the extent to which the items of instruments cover the research objectives, and whether the instruments shall answer the research questions (Borg & Gall, 2007). To enhance the validity of the

questionnaires, a pre-test was conducted on a population similar to the target population. Questionnaires were administered to principals of seven schools, 28 H.O.Ds of academic departments and 91 Form Three students. Items of instrument covered the research objectives. The findings of the pilot study were discussed with the supervisors. Upon agreement on the use of the instruments as tested, the actual field study was carried out using the validated instruments.

3.8 Instrument Reliability

Cronbach's Alpha test was done with the help of using SPSS version 18 on all the three questionnaires and the results are as shown in Appendix F, G and H and table 4.The principals questionnaire had Cronbach's Alpha of .775, Teachers Questionnaire had Cronbach's Alpha of .773 and the Students Questionnaire had Cronbach's Alpha of .711. This implied that there was a high degree of reliability of the instruments. Reliability between 0.70 and 1.0 indicate that the instrument is reliable (Carmines & Zeller, 1979). These results showed that the instruments were reliable.

Table 4:

Reliability Statistics for the Questionnaires

Questionnaire	N	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items
Principals	30	.775	.391
Teachers	120	.814	.839
Students	390	.713	.673

3.9 Data Collection Procedure

The researcher was given a letter from the postgraduate studies department. Research authorization was sort from the National Council for Science and Technology of the republic of Kenya by applying for a research permit using the letter. When permitted, County Director of Education of Nairobi County was notified of the research. The researcher then sort permission from the principals of the sampled thirty schools in order to collect data. The questionnaires were administered to the principals, Heads of academic departments and Form three students.

3.10 Data Analysis

Collected data was sort by inspecting the responses on the questionnaire items in order to identify items wrongly responded to and any blank spaces left unfilled by the respondents. Data was categorized according to principals, teachers and students responses to the items on the questionnaires. Data analysis was done following the four phases normally used in research; data clean up, reduction, differentiation and explanation. Data clean up involved editing, coding and tabulation in order to detect any anomalies in the responses and assign specific numerical values to the responses for further analysis (Marshall & Rossman, 2011).

The study generated both quantitative and qualitative data from principals, Teachers and students. Data coding was done using Statistical Package for Social Science (SPSS) computer software version 18. After this process the data was counter-checked for possible erroneous entries. Frequencies, percentages and means obtained were used to interpret the findings.

To establish whether there was significant relationship between school climate and student's subject choice, Pearson Chi square analysis was done on hypotheses 1, 2, 3, and 4. The information collected using observation check list was also edited and analyzed as qualitative data. The information collected that was qualitative was edited and "cleaned up" in the process of organization. Such a procedure is said to be good for qualitative analysis (Marshall & Rossman, 2011). Both qualitative and quantitative data was analyzed using SPSS version 18.

One way ANOVA test was applied to compare means of school climate and that of students' subject choice to establish whether there was significant difference between the means. It involved one independent variable (referred to as a factor) with a number of different levels. The levels correspond to different groups or conditions (Pallat, 2005).In this case it was used to establish whether there was significant difference between school climate means (principals' instructional leadership, teachers' support and care, students' involvement and maintenance of facilities and resources) and students' subject choice means (science, humanity and creative arts). Data collected was presented using tables and charts. The researcher used notes to interpret the presented data.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

This chapter entails the analysis of collected data, interpretation and discussion. The findings are based on each of the research objectives and are presented and discussed. The study focused on establishing whether there was significant relationship between school climate and students' subject choice. The aspect of school climate that was studied was limited to; principals' Instructional leadership role, Teachers' support and care, Students' involvement in learning process and availability and maintenance of Learning facilities and resources. Students' subject choice was limited to Form three students.

4.2 Response Rate

Principals' Questionnaires were 30, Heads of Academic departments had 120 and Form Three students had 390. These were distributed and returned as follows; 100% for principals (30 questionnaires), 100% (120) for teachers and 100% (390 questionnaires) for Form Three students. This high percentage return rate was attributed to the researcher's initiative of distributing and collecting the questionnaires in one visit. The researcher visited a school per day and would wait until the respondents were through with filling in of the questionnaires. The absent principals were represented by the deputy principals and the absent heads of academic departments were represented by the heads of subjects. The two categories of respondents were mandated to act at the capacity of their seniors when they are absent. They were therefore treated in the same capacity of their seniors in this study. Students were given the questionnaires during lunch breaks and because the items were simple to respond to, it took about twenty minutes. There was

a lot of support from the principals, teachers and students in Public secondary schools visited in Nairobi County. This made it possible for the return rate of the questionnaires to be 100%.

4.3 Demographic Information

The result of the findings on the demographic information was used in assessing the respondent's suitability in participating in the study in terms of having had opportunity to interact with the variables under study. Demographic information for principals and Teachers was based on age, gender, academic qualification and years of service while for students, was based on age and gender

4.3.1 Principals' Gender

The principals were given questionnaires that had items which requested them to respond to in order to give information about their gender. Figure 2 shows that 30% (9) of the principals were male while 70% (21) were female. This means that the highest percentage of the principals managing the 30 public secondary schools that were sampled were females. This may be attributed to the fact that most of the mixed secondary schools were managed by female principals. However, there were some few mixed secondary schools that were managed by the male principals. This gender scenario revealed that each category of school was faring represented and that the responses were valid and could be used to for purposes of inference.

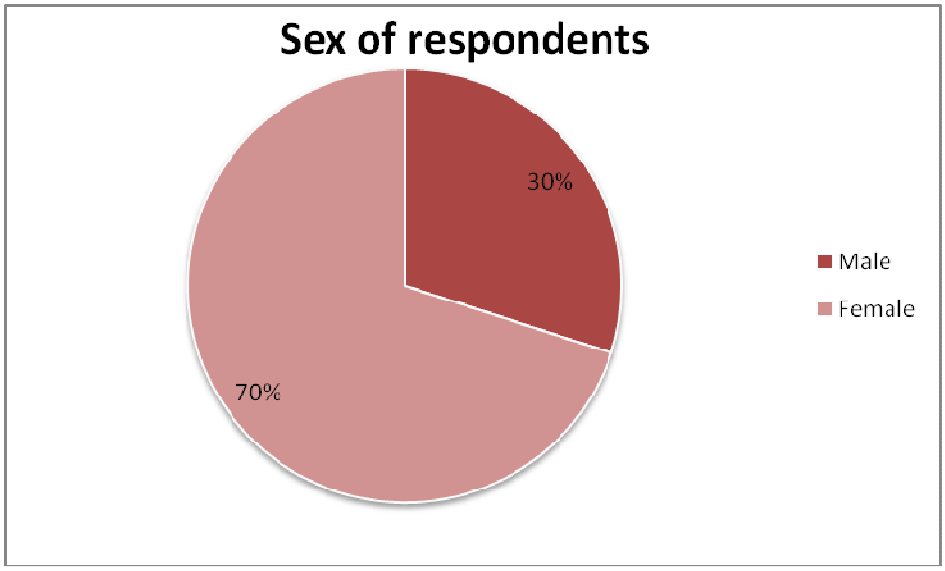


Figure 2: Principals' Gender

4.3.2 Principals' Academic Qualifications

The study findings revealed that all the thirty principals had academic and professional qualifications. Principals who had at least a Bachelor in Education were 87% (26) while 13% (4) had other academic qualifications as illustrated in Table 5. This connotes that the respondents understood the professional practices hence were able to respond to the variables of study from a professional point of view.

Table 5:

Principal's Professional Qualification

Principals' qualification	Frequency	Percentage
Bachelors of Education	17	57
Masters of Education	9	30
Others	4	13
Total	30	100

4.3.3 Principals' Years of Service

The study established that most principals accounting for 60 % (18) had served between less than six to ten years as illustrated by Figure 3. This means that most Public secondary schools in Nairobi County were managed by principals who were experienced and therefore could give correct responses to the items on study.

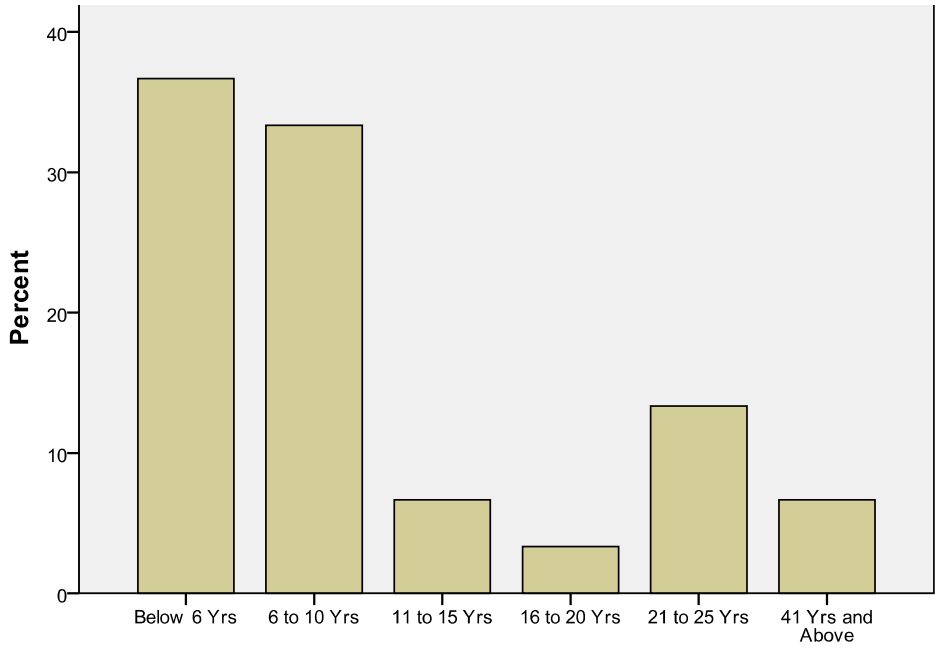


Figure 3: Years of Service as a Principal

4.3.4 Teachers' Gender

The study revealed that from the sampled teacher population out of 120 academic heads of department, 77(64%) were female while 43(36%) were male as illustrated in Table 6. This shows that there was a representation of each gender thus the variable on study had responses from both genders. The implication of this to the study is that data collected was viable since it represented both genders and could be used for generalization of the findings.

Table 6:

Teachers' Gender

Teacher's gender	Frequency	Percentage
Male	43	36
Female	77	64
Totals	120	100

4.3.5 Teachers' Age

The study revealed that the highest percentage of the teachers were within the age bracket of 41 to 45 years (43.3%) while the least were between 21 to 26 years (3.2%) as illustrated by Figure 2. This implies that most teachers were mature enough to respond to items on the variables of the relationship between teachers' support and care and students' subject choice. Their responses could be used for inference.

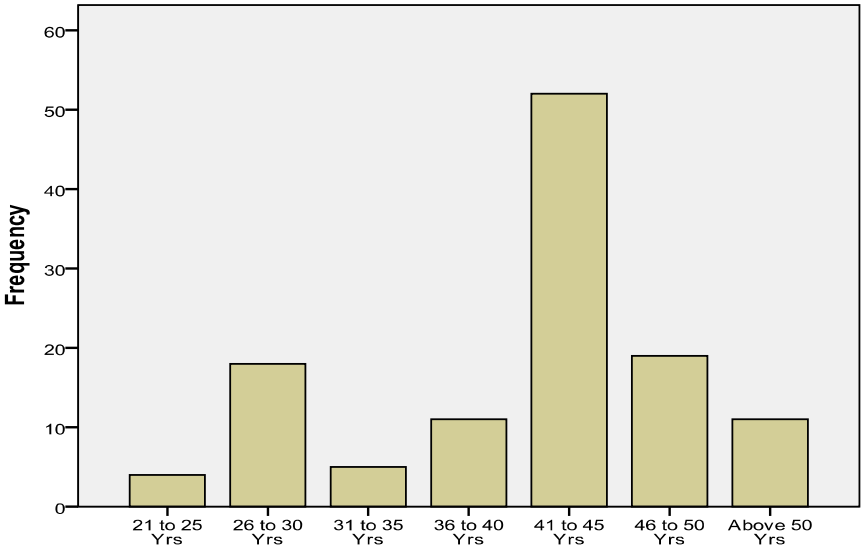


Figure 4: Teacher's Age

4.3.6 Teachers' Professional Qualifications

The study revealed that all the 120 were professionally trained as Teachers. Figure 5 shows that 84.2% (101) of the teachers had professional qualifications of a minimum of

bachelors in education and above while 15.8% (19) had other qualifications. This means that all the respondents understood teaching and learning processes therefore were able to respond to the variables under study from a professional point of view. It also meant they had the ability to guide the learner in decision making in matters regarding their education especially on subject choice.

Studies that have been done reveal that there's a substantial body of research evidence to support the common sense notion that quality of teaching is an important influence on student's performance. More specifically, it is possible to identify particular teaching strategies which are more effective than others. Effective strategies are those which focus on academic work and outcomes, maximize student task involvement, minimize disruptions, encourage effort and persistence and promote co-operation to improve the performance of the class as a whole. It is also clear that teachers require specific expertise in the areas in which they are assigned to teach. This expertise extends beyond subject matter competence to include knowledge of how students approach subject matter and how academic content can be translated into content suitable for teaching. Such kind of professionalism is expected to create a school climate that enhances student mental development that enables them to make informed decisions in their academic journey especially on the choice of subjects to pursue.
(http://www.cdli/depted/royal/document/adorse2/sect.htm).

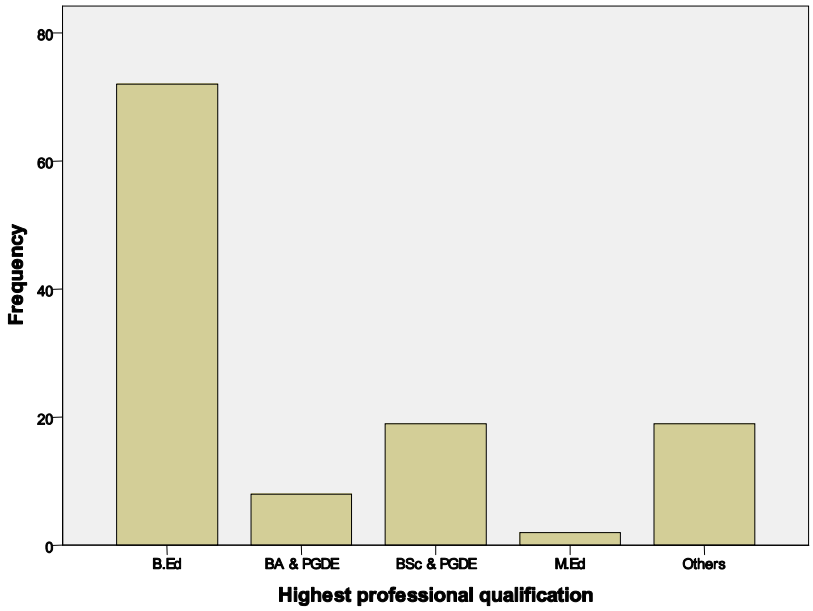


Figure 5: Teacher's Qualification

4.3.7 Teachers' Years of Service

The findings revealed that most of the teachers had teaching experience of 6 years and above 81.7% (98) while a few had teaching experience of below 6years 18.3 % (22) as illustrated in Table 7. Charles (2007) observed that teachers' experience is very important in the life of a student. It has a significant positive effect on students' achievement, with more than half of the gains occurring during the teachers' first few years, but substantial gains occurring over subsequent years, albeit at a slow rate. These findings enhanced understanding of teachers' support and care and students' subject choice in this study.

Table 7:

Teachers' Experience

Teachers' years of service	Frequency	Percentage
Below 6 years	22	18.3
6 to 10 years	04	3.3
11 to 15 years	16	13.3
16to 20 years	43	35.8
21 to 25 years	22	18.3
26 and above	13	11.0
Total	120	100

4.3.8 Students' Age

Students were requested to indicate their ages. Table 8 shows the findings which reveal that 94.4% of the students were between ages 15 and above while 5.6% were below 15 years. This implies that most of the students in Form Three in Public secondary schools in Nairobi County were above 15 years hence were mature and could report on events in a rationale way, especially on those related to learning of the subjects they had chosen.

Table 8:

Student's Age

Student's age	Frequency	Percentage
Below 15 years	22	5.6
15 to 17 years	368	94.4
Total	390	100

4.3.9 Students' Gender

The findings on students' gender illustrated by Table 9 revealed that Form Three female students were more compared to male students in Public secondary schools in Nairobi County. 54% (210) of the students were female while 46% (180) were male. The

difference in student's gender percentage was minimal (8%) thus there was a fair representation of gender response to the variables under study.

Table 9:

Students' Gender

Student's gender	Frequency	Percentage
Male	180	46
Female	210	54
Total	390	100

4.4 H01: Principals' Instructional Leadership Role Has No Significant Relationship with Students' Subject Choice in Public Secondary schools in Nairobi County.

4.4.1 Principals' Instructional Leadership Role and Students' Subject Choice

The study in hypothesis one sort to establish whether there was significant relationship between instructional leadership role and students' subject choice in Public secondary schools, in Nairobi County, Kenya. Five items prepared from school climate inventory scale (Haynes *et al,* 1993) were given to the principals. Frequencies, Means and standard deviations were used to interpret the findings while Pearson Chi square test of independence was applied to establish whether there was significant relationship between Instructional leadership and students' subject choice.

4.4.2 Students' Population

Principals were requested to give responses to items that enabled determination of the student's population in each category of the schools. They were also requested to respond

to five items prepared from school climate inventory scale that is used to determine principal's leadership role in school climate research (Haynes, Emmons & Comer, 1993).

Table 10:

Number of Students per School

No. of students per school	Frequency	Percentage	Mean	Std Dev
201 to 400	4	13.3		
401 to 600	12	40.0		
601 to 800	4	13.4		
Above 801	10	33.3		
Total	30	100	3.17	0.902

The findings revealed that most of the principals at a mean of 3.17 and standard deviation of 0.902(86.7%) managed schools with a population of 401 and above while few principals 13.3 % (4) managed schools that had a population of 201-400 (Table 10). The distribution of student's population was sufficient for the study inference because it catered for all categories of Public secondary schools in Kenya. It was important to establish the size of the institutions that the principals managed because it showed the demands placed on instructional leadership in making sure that healthy interpersonal relationship was enhanced despite the number of persons in a given school environment. School size and ratio of students to teachers in the classroom is among the constructs in the physical dimension of school climate. Institutional management requires high professionalism in order to encourage a healthy interpersonal relationship amongst the stake holders. Effective leadership creates school climate that encourages holistic student

development thus ability to make informed decisions on academic and daily life choices and especially on subject choice.

4.4.3 Outsourcings for Learning Facilities and Resources by Principals

Principals were requested to respond to items that revealed their effectiveness on provision of materials. Their responses to a four item Likert scale; Always, Often, A little and Never, enabled interpretation on whether Principals are able to outsource for physical facilities and learning resources. The study found that the highest percentage of the Principals at a mean of 2.87 at a standard deviation of 1.042 (43%) outsourced for the physical facilities and learning resources (Table 11). One of the Principal's instructional leadership roles is to maintain and provide resources required for learning. This exposes students to many subjects and enhances student's ability to make choices of the subjects to pursue in their course of learning as determined by the availed resources.

Table 11:

Principals' Outsourcing for Physical Facilities and Learning Resources

Item	Frequency	Percent	Mean	Std Dev
Always	13	43		
Often	11	37		
A little	6	20		
Total	30	100	2.87	1.042

The findings connote that most principals were committed to making sure that Physical facilities and learning resources were outsourced thus making sure that Institutional demands in terms of resources were availed. Physical facilities and learning resources are

a prerequisite for students to choose subjects. Resources in education play a very important role in facilitating teaching (Mc Aliney, 2009). It is difficult for students to choose subjects that have no availed resources. The four principals who indicated that they out sourced a little might be those who are in public secondary schools that have almost sufficient resources. They could be principals that did not do so because probably their instructional leadership role is lacking. The principals that did not outsource could probably be from Public secondary schools that have sufficient physical facilities and learning resources.

School climate is a multidimensional construct that includes physical, social and academic dimension. Researches that have been done reveal that the three constructs are vital in a learner's academic journey. Principal's instructional leadership is the actions that a principal takes or delegates' to others to promote growth in student learning (Wildy & Dimmock, 1993).These actions include tasks such as defining the purpose of schooling, setting school-wider goals, providing the resources needed for learning to occur, supervising and evaluating teachers, coordinating staff development programmes and creating collegial relationships with and among other teachers.

4.4.4 Principals' Instructional Leadership Role and Teachers Staff Meetings

Effective instructional leadership demands frequent meetings and briefs with the teaching personnel for purposes of immediate feedback. In order to establish whether principals had staff meetings and briefs with the teaching staffs, they were requested to indicate how often the meetings took place. Frequencies were used to interpret the findings. Figure 6 shows that the highest percentage of principals (46.7%) principals indicated they had staff meetings and briefs once per week, while a small percentage (13.3%) indicated

they had them when need arises (other). This may imply that teaching staffs had an avenue to communicate any matter arising on student's subject choice. It may also imply that the principals created a forum for communication hence enhancing a positive school climate that encourages interpersonal relationship thus enhancing student's development. Those that had meetings and briefs once a month and once a term were 40% of them. These findings may imply that these Principals did not create enough forums for communication or it may imply that information was communicated through other channels such as heads of department. This may affect the flow of information from students especially on issues of subject choice that might require urgent address from the principal.

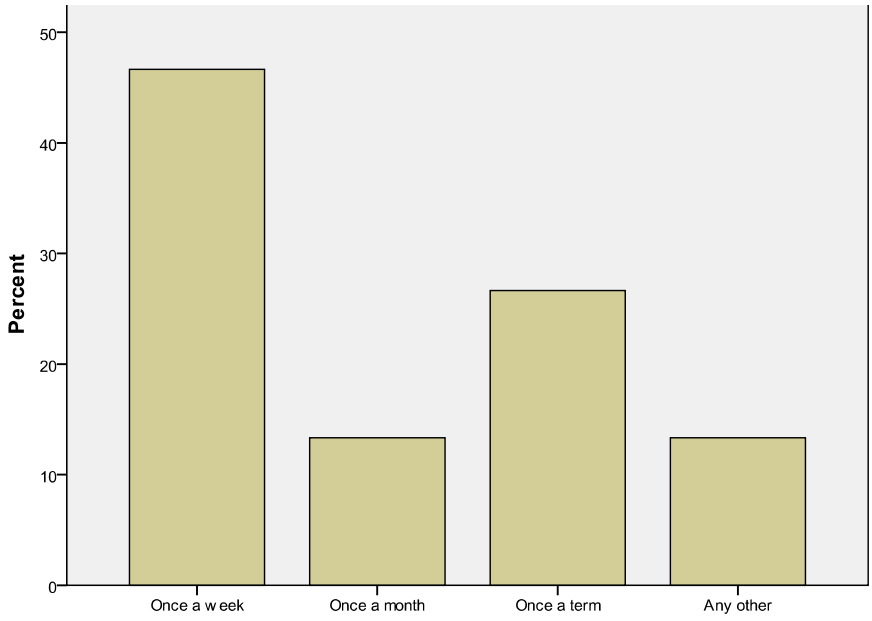


Figure 6: Frequency of Staff Meetings

Effective leadership encourages interpersonal relationship which is very important when assisting students to develop skills of decision making especially on matters of subject choice. All the teaching staffs are in constant touch with the student thus should have

frequent meetings with the principals to give feedback on students' needs such as facilities and resources that should be availed on time to enhance students' subject choice.

4.4.5 Principals' Instructional Leadership Role and Communication of Students' Concern on subject choice

The principals were given items to respond to in order to establish how they communicated to student's concern. Their response was to facilitate the collection of data. Frequencies and percentages were used to interpret the findings. Results shown in Figure 7 indicate that the highest percentage was of those who communicated through student's leaders 30% (9) and others 30% (9) while those who communicated through the class teachers were 26.7% (8) and the least communication was done directly through the principal 13.3% (4). These findings indicated that majority of the principals addressed student's concern through the assemblies (others) and student's leaders. The findings may be an indication that there were some structures of communication put in place in most learning institutions. However, there were some few principals 13.3% (4) who indicated that students communicated directly to them.

One cannot become an effective instructional leader without effective communication. Clear, positive communication with a focus to the students and teachers builds confidence and enhances interpersonal relationship thus a positive school climate.

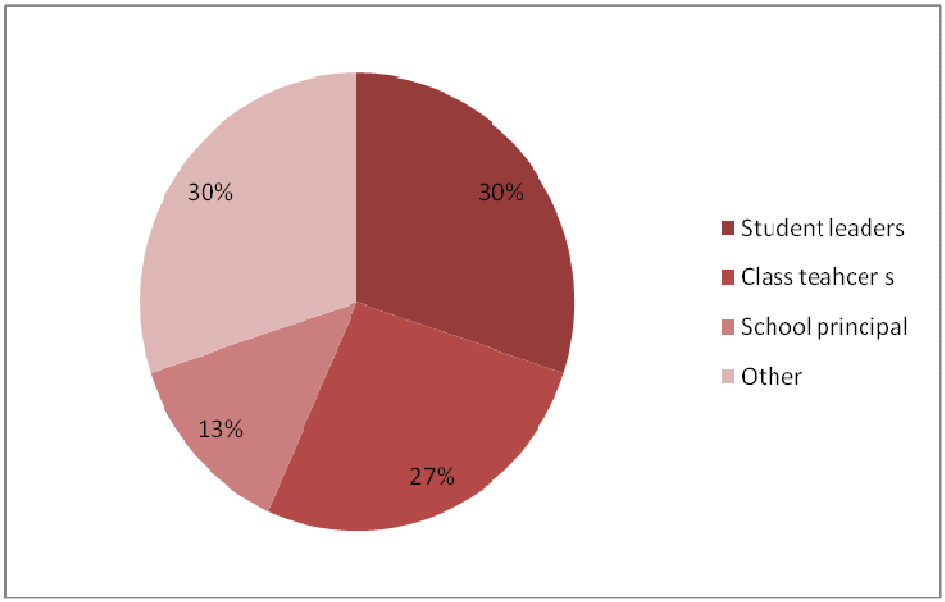


Figure 7: Communication of Student's Concern on Subject Choice

A positive school climate is fostered through leadership that enables open channels of communication to enhance interpersonal relationship between the teachers, students and the principal. This encourages students' concern to be addressed on time thus enabling the students to have confidence in consulting or reporting their concerns about academic issues such as subject choice or non academic concerns that may affect their learning indirectly. Students are able to channel their views on subject choice when communication is open.

4.4.6 Principals' Instructional Leadership Role and Teachers' Turnover

Principals were requested to indicate the number of new teachers joining the school per year. The study findings shown in Figure 8 shows that, the highest percentage of the principals 30% (9) indicated that at least one teacher joined the school per year while the lowest 16.7% (5) indicated that no teacher joined the school per year. This implies that in cases where there was shortage of teachers in particular subjects in public secondary

schools, there was a high possibility of students failing to choose particular subjects for lack of teaching personnel. It may also imply that the schools had enough teaching personnel thus had no need of having new teachers joining them. In such cases, the implication was that students could choose subjects they desired to pursue because there were enough teaching personnel. Teaching personnel in most public secondary schools has been a problem especially in subjects such as Geography and most creative art subjects. This means students would not be able to choose subjects of their choice due to shortage of teaching personnel.

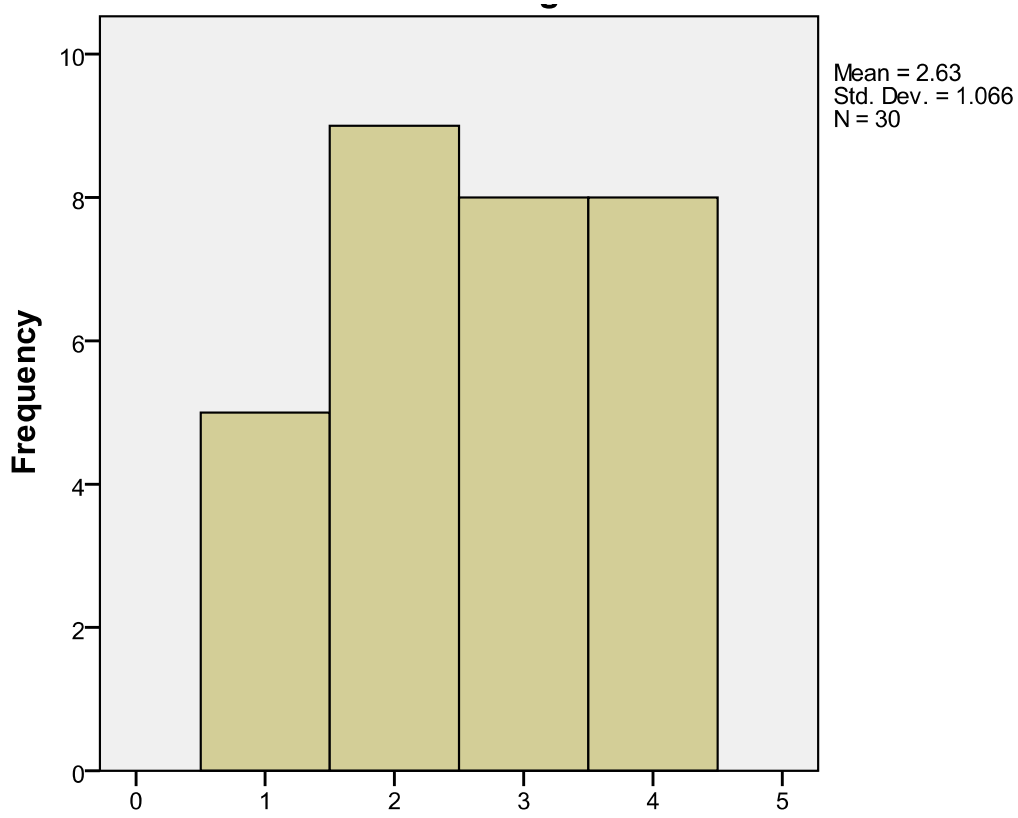


Figure 8: Number of Teachers Posted to the School per Year

The number of teachers in a learning institution is very crucial because it determines whether students have enough teachers for all the subjects or not. The school climate is said to be positive where teaching personnel is sufficient for effective teaching thus enhancing student's subject choice.

4.4.7 Principals' Instructional Leadership Role and Teachers' Transfer

Principals' instructional leadership can either retain teaching personnel or discourage them thus causing them to seek transfer or alternative career. When this happens, the school climate can be interpreted to be negative and can affect students' subject choice as revealed by this study.

When the principals were requested to indicate the number of teachers that transferred per year, the highest percentage 33.3% (10) indicated that none of their teaching personnel transferred per year while the lowest percentage16.7% (5) indicated that one teacher transferred per year as shown in Figure 9.

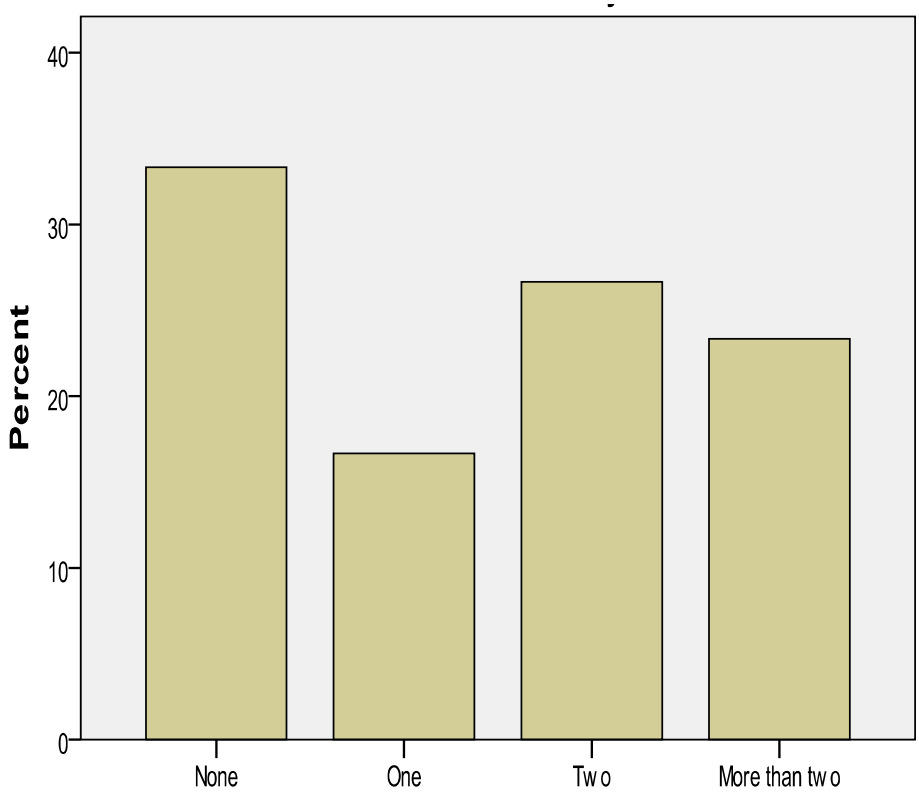


Figure 9: Number of Teachers' Transfer Per Year

These findings revealed that teachers in Nairobi County would rarely opt for a transfer most probably due to the efficient instructional leadership that maintains teaching personnel or due to convenience of its location in terms of other opportunities such as availability of several institutions of higher learning where teachers can easily advance their education in the evening after work. The few that indicated that one teacher transferred in a year may be indicative of inefficient instructional leadership or teacher's promotion that may require them join new institutions for the new roles entrusted to them by the teacher's service commission. In such cases then, efficient instructional leadership would outsource for teaching personnel so that the number of students desiring to choose a particular subject are not disadvantaged by the transfers. As stated earlier, physical dimension of school climate requires that the school size and ratio of students to teachers

be proportional to enhance healthy teaching. Principals who are committed to enhancing positive school climate use every possible avenue within their authority to make sure that student's subject choice is not affected by teachers' shortage.

4.4.8 Teachers' Response on Principals' Instructional Leadership Role

To further establish whether there was significant relationship between principals' instructional leadership role and the students' subject choice, 120 teachers who were heads of academic departments in the sampled public secondary schools in Nairobi County were requested to respond to 11 items prepared from school climate inventory scale (Haynes *et al,* 1993). Their responses were ranging from strongly agree, agree, uncertain, strongly disagree and disagree on a five - point Likert scale. SPSS version 18 was used to compute the mean of principals' instructional leadership role per school. (Refer to Table 12).

Table 12:

Teachers' Response on Principals' Instructional Leadership Role

Item	N	Mean	Std. Dev.
Closely supervises teachers	120	2.75	1.063
Listens and accepts teacher suggestions	120	2.13	0.888
Involves teachers in decision making	120	2.12	0.780
Complements teachers	120	3.93	0.852
Encourages teachers to train	120	2.00	0.889
Encourages teachers autonomy	120	2.00	1.013
Goes out of way to help teachers	120	1.88	0.758
Principal is warm to teachers	120	1.87	0.721
Accessible when need arises	120	1.83	0.999
Stimulates teachers to think on students' welfare	120	1.81	0.813
Principal encourages teachers towards school goals	120	1.73	0.896
Average mean		2.19	0.879

Teachers were requested to indicate whether principals supervised teachers too closely. The greatest number of teachers agreed at a mean of 2.75 and standard deviation of 1.063 that principals supervised teachers too closely. Effective instructional leadership requires close supervision of the teachers. Principals should have a comprehensive guide that can be exposed to the teachers to help them improve in instruction (Glickman, 1990). Having a higher number of teachers affirming on the principal's supervisory role, was found to be an indication that there is effective curriculum implementation and students are also

exposed to a broader curriculum that enrich their possibilities of subject choice. However there were also quite a significant number of teachers who disagreed. This could be an indication of either ineffective instructional leadership or a possibility of principal's delegation of supervisory role to the heads of department, who are also considered to be part of institutional managers according to the ministry of education in Kenya.

The response on whether the principals listened and accepted teacher's suggestions revealed that most of the teachers at a mean of 2.13 and standard deviation of 0.888 were agreeing to the fact that principals listened to their suggestions. This could be an indication that most of the principals were able to respond to any concern or implement a suggestion presented to them on time especially on subject choice. Edmond (1979) in his discussion about instructional leader's role as an administrator states that effective principals develop and implement plans for dealing with student's reading problems.

According to the study at hand, one would interpret that the principals listened to teacher's suggestions on student's subject and responded by implementing each change that could enhance student's subject choice. Those that were uncertain could be the teachers who did not know whether principals accepted suggestions and those who disagreed could possibly be those whose principal's instructional leadership role in that aspect was not effective. One of the roles of instructional leadership is to co-ordinate implementation of curriculum by the teachers and to lead them towards educational achievement. Richardson (1989) says that an instructional leader must be a person who makes instructional quality the top priority of the school and must be able to bring that

vision to realization. In this case the principal must be able to coordinate learning that encourages the learner to effectively choose subjects.

Teachers were requested to indicate whether principals complemented them in the course of their duty. The findings revealed that at a mean of 2.07 and standard deviation of .852 most teachers agreed that principals complimented them as they carried out their duty and other professional demands. This boosts teacher's moral and encourages positive interrelationship thus a positive school climate that would enhance students all round development and ability to relate confidently with teachers. This means that students can easily access their teachers and get assistance when choosing the subjects.

Teachers were requested to indicate whether principals provided for extended training to develop their knowledge and skills relevant to being a member of the school. The findings reveal that most teachers agreed at a mean of 2.00 and standard deviation of 0.889 that most of the principals were effective in their leadership role of staff-development. The implication of such findings according to this study is that, any change that might occur in terms of subject choice would find well informed teachers who are the curriculum implementers (KICD, 2011). This is a reflection of a positive school climate. Students in such institutions would be well informed by teachers who are effective in their subject of specialty.

In the year 2002, Kenya Institute of Curriculum Development (which is the government arm mandated with curriculum development in Kenya) decided to bring a lot of changes in both curriculum content reorganization and reduction of the of subjects (KICD, 2011).Such changes which were meant to bring improvement in implementation of

curriculum in secondary schools in Kenya might have affected teachers who were not well informed of the changes in curriculum implementation process thus affecting student's subject choice in cases where they are not informed by their teachers. Information on the ability of the principals to organize staff development is important because it determines whether the teaching personnel under their jurisdiction are informed. Principals in their instructional leadership have the role of staff development. Glickman (1990) says that an effective instructional leader is one who continuously invests on the development of staff. Learning is a lifelong pursuit thus to improve the quality of education, educationist should be continuously educated. He continues to say that there are several ways in which educators can receive on-going education; through school in-service days, workshops, university classes, staff meetings, school visitations, conferences and travel or professional readings.

The teachers who disagreed may be an indication that the principals in those institutions did not organize for staff training programmes. This could either be a reflection of being ineffective in instructional leadership or insufficient resources for the training programmes. This in turn would create a negative school climate that would affect student's subject choice negatively. It may also be an implication of insufficient funds to organize trainings. Either way, students in such institutions would be disadvantaged in terms of subject choice. The teachers who were uncertain may probably be those that were not informed on what staff development entails.

Teachers were requested to indicate whether the principals were warm to them. The findings reveal that most teachers agreed that the principals were warm at a mean of 1.87 and standard deviation of 0.721. Thus a possibility of a positive school climate which is a

learning environment that is enhanced by effective instructional leadership. This enhances Peer coaching because of a relationship of trust and credibility with teachers. Teachers gain confidence with the leadership and this motivates them to give the best to the students who depend on them for guidance on subject choice.

Teachers were to indicate whether the principals encouraged teacher autonomy as far as decision making on students' subject choice was concerned. The findings reveal that most teachers agreed that the Principals encouraged teacher autonomy at a mean of 2.00 and standard deviation of 1.013. The process of teacher autonomy refers to the professional independence of teachers in schools, especially the degree to which they can make autonomous decisions about what they teach to students and how they teach it (Glossary of education reform, 2014).When instructional leadership enhances teacher autonomy, it enables the teachers to develop self confidence thus can assist the students in making informed decisions especially on correct choices in subjects to pursue for their future careers.

When teachers were asked to indicate whether the principals went out of their way to help teachers, most teachers agreed at a mean of 1.88 and standard deviation of 0.758 that the principals went out of their way to help teachers, however a small percentage of them disagreed and others were uncertain. These few teachers may be a representation of teachers who are in public secondary schools where principals' instructional leadership is wanting in this area hence may create an environment that does not motivate active teachers that may need their help on issues pertaining to subject choice.

Teachers' response on whether principals encouraged teacher's to work towards common school goals reveal that most teachers agreed at a mean of 1.73 and standard deviation of 0.896. This would imply that incase it is a goal towards enhancing student's subject choice; the teachers would be motivated to pursue it thus assisting students to make informed decisions on the subjects to choose. Glickman (1990) asserts that an instructional leader has a role of identifying goals and creating conducive environment for action. The findings based on this assertion reveal that the principals did not only set goals in regard to subject choice but also involved the teachers in pursuit of the same. This would create a positive school climate which can enhance student's subject choice.

Teachers were also required to indicate whether the principals involved them in decision making. Teachers agreed that most of the principals involved them in decision making at a mean of 2.12 and standard deviation of 0.780. One role of an instructional leader is to bring changes in an institution through informed decision. One is said to be effective when every stake holders are involved to make changes. From these findings, most principals involved teachers in decision making thus creating an enabling environment where decisions on student's subject choice can be made by all the stake holders. The few teachers that indicated that they were not involved in decision making were probably those found in institutions that had instructional leaders that were autocratic in their leadership. Such do not involve their subjects in decision making thus in regard to the study at hand, the school climate created may not be enabling the students to make informed decisions on their subject choice because most teachers may not own up the process due to lack of involvement in decision making.

Teachers were requested to indicate whether principals were accessible whenever need arises. The findings revealed that most of the teachers agreed at a mean of 1.83 and standard deviation of 0.999 that the principals were accessible thus teachers were able to communicate to them any concerns about student's subject choice, the needs on the subjects they taught or any other individual concern they had. Principal's accessibility enhances positive school climate that encourages holistic student's development thus maturity in the skill of decision making which is vital in subject choice. Those who indicated that the principals were not accessible may be a representation of principals who delegate roles to their deputies and only avail themselves to the teachers when there is need for intervention. While delegation of duties is necessary in institutions, instructional leaders are required to be available to teachers because teachers are the curriculum implementers. This enables them to solve issues that might delay their teaching process when not attended to thus negatively impacting on student's subject choice. Bamburg and Andrews, (1990) state that an effective instructional leader should be an invisible presence that visits classrooms, attends departmental or grade-level meetings, is accessible to discuss matters dealing with instruction and is an active participant in staff development. This enhances a positive school climate that encourages students to make informed decisions on subject choice as guided by the informed teachers.

When teachers were requested to indicate whether principals motivated them to think on students' welfare, most teachers agreed at a mean of 1.81 and standard deviation of 0.831. This may imply that most of the principals motivated the teachers to think about students' welfare. Glickman (1990) says that there are areas of interpersonal skills that

are essential in development of positive relations: trust, motivation, empowerment and collegiality. From this statement, one could conclude that an effective instructional leader should use their position to motivate teachers to think of students' welfare especially on subject choice and give them moral support. This would make teachers be able to identify students' needs early enough and be able to assist them in their endeavors of subject choice. In such cases, the school climate is said to be positive thus may affect students' subject choice positively.

4.4.9 Students' Subject Choice

In order to establish how the students chose the subjects, five items were prepared and given to the principals. The findings as shown in Figure 10 reveal that the highest percentage of principal 67% (20) indicated that the students chose from within the allowed subject combination. Principals had subject combinations put in place in their institutions where students had to choose as guided by the combinations. The least percentage of 3% indicated that students chose subjects depending on their performance while in previous classes Form One and Two. However, the other 30% indicated that students were taken to classes that do particular subjects when they were admitted in the school, others were guided by the teachers on the subjects to choose, and others indicated that there was no limit of subject combinations for the students.

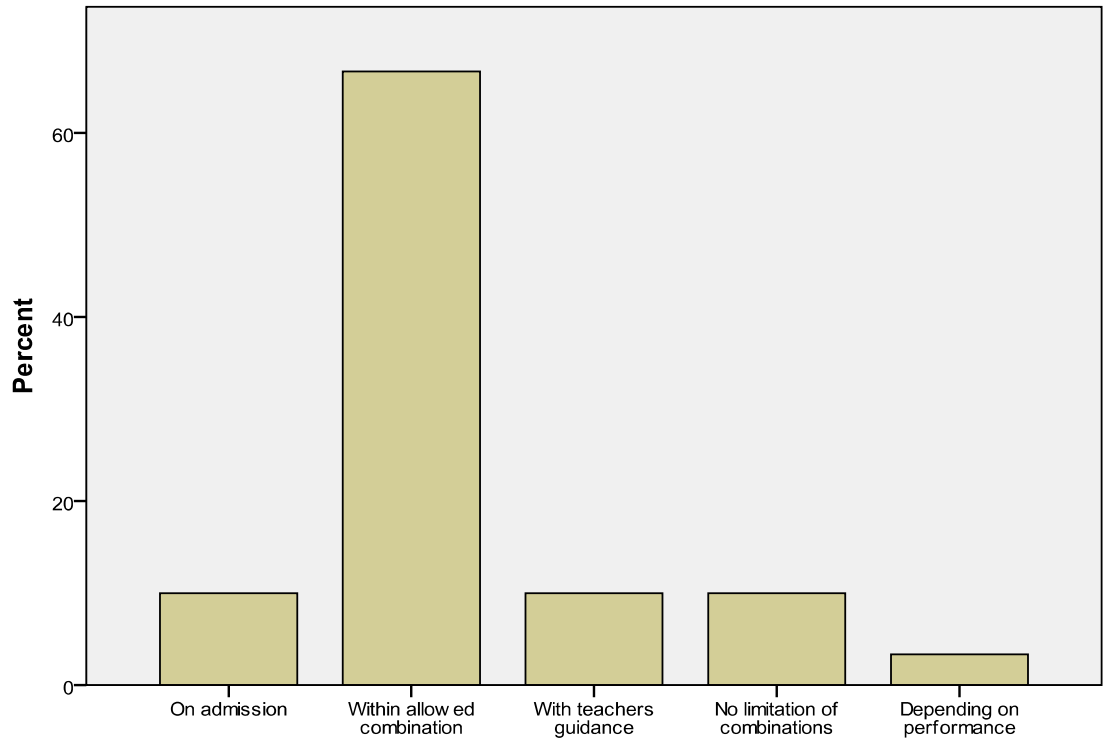


Figure 10: Students' Subject Choice

Teachers were requested to respond to one item on whether principals encouraged students to choose particular subjects. The findings reveal that most of the teachers agreed at a mean of 3.18 and standard deviation of 1.328 that principals encouraged students to choose particular subjects (Table 13). Those that disagreed may refer to those that are in institutions where subject choice guideline have been put in place according to the running program of the school hence do not depend on the situations at hand. Those that were uncertain may refer to those that were in institutions where the principals were not keen on matters of subject choice or were indirectly involved thus the teachers were not sure of their involvement on the same. It could also imply teachers who were ignorant on matters of subject choice. One of the roles of a principal as an instruction leader is to give instructional counsel to both students and teachers thus on matters of subject choice it is possible for them to direct the students towards particular subjects

especially where there is sufficient teaching and learning resources. They can also advice according to the career opportunities that the subjects may help them to pursue in future. However, although principals encouraged students to choose subjects they were limited by other factors such as the guidelines given by KICD and KNEC.

Table 13:

Principal Encourages Students on Subject Choice

Item	N	Mean	Standard Dev
Principal encourages students to choose particular subjects	30	3.18	1.328

All over the world, formal educational systems have elements such as subject choice which require the students to choose the subject to pursue at particular level of education. For most students, the passage is relatively smooth, but many make inappropriate choices based on inadequate knowledge and distorted perceptions. The groupings of subjects in different countries depend on their educational policies. In Kenya, public secondary schools have a system where subjects are grouped in to five different groups out of which some are compulsory while others are optional. Students are supposed to do the compulsory subjects and also choose from the optional subjects that are differently put into optional groups according to different school programmes.

Apart from the guidelines given by Kenya institute of curriculum development to the principals as instructional leaders in Kenyan public secondary schools, there are other requirements that must be fulfilled before a student sits for K.C.S.E (KICD, 2011).

This means there are subjects that are compulsory such as Mathematics, English and Kiswahili while others are optional as discussed earlier. The students are required to do two science subjects; one humanity subject and the rest are chosen from creative art subjects. The minimum number of subjects that K.N.E.C requires the students to sit for examination by the end of the four year course is seven and the maximum is nine.

When the Form Three students were requested to indicate the option subjects they chose, the findings reveal that in some schools students chose all the three Sciences (Physics, Chemistry and Biology) instead of the minimum requirement of two sciences hence such schools were more science oriented. Students in schools that were more Art oriented chose two Humanity subjects out of the three (History, Geography and CRE). In the category of Creative Arts, very few schools offered the subjects and those that did, offered Business studies, Agriculture, Home science and Computer (Table 14).

Table 14:

Students' Subject Choice in Science, Humanity and Creative Arts

Option subjects	N	Frequency	Percentage
Sciences			
Physics	390	187	47.9
Chemistry	390	382	97.9
Biology	390	337	86.4
Humanity			
History	390	280	71.8
Geography	390	125	32.1
C.R.E	390	272	69.7
Creative Art			
Business Studies	390	197	50.5
Agriculture	390	73	18.7
Computer	390	55	14.1
Home science	390	32	8.2

To determine whether there was significant relationship between principals' instructional leadership role and students' subject choice, data collected from teachers on instructional leadership role and subject choice was subjected to Pearson Chi-square test.

4.4.10 Pearson Chi-square Test Result on HO1

There is no significant relationship between principals' instructional leadership role and students' subject choice

Pearson chi-square test was conducted to examine whether there was significant relationship between principals' instructional leadership role and students' subject choice. The results revealed that x^2 value was 30.153 at Degree of freedom (df) of 16 at p-value of $p \leq .017$(refer to Table 15). This p value was less than $p \leq 0.05$ level of significance. These findings reveal that there was significant relationship between principals' instructional leadership role and students' subject choice. Null hypothesis (H0) which stated that there was no significant relationship between principals' instructional leadership role and students' subject choice was rejected and the alternative (HA) which states that there is significant relationship between principals' instructional leadership role and students' subject choice was accepted. These findings mean that as the principals carry out their instructional leadership role, they influence students' subject choice either positively thus positive school climate but when they fail in their leadership role, they influence students subject choice negatively thus negative school climate.

Table 15:

Pearson Chi-Square Test on Principals' Instructional Leadership Role and Student's Subject Choice

	X^2 value	df	Asymp. Sig (2-sided)
Pearson Chi-square	30.153[a]	16	.017
Likelihood Ratio	35.874	16	.003
Linear-by-Linear association	.141	1	.707
N of varied cases	120		

These findings agree with studies that have been done on examination of relationship between instructional leadership of school principals and self-Efficacy of teachers and collective teacher efficacy which revealed that instructional leaders carry out a lot of duties at school (Hallinger, 2011) and they affect learning and teaching directly and indirectly (Daresh & Ching-Jen, 1985). An efficient instructional leader provides an effective teaching and learning environment which increases the quality of education at school (Marks & Printy, 2003).This is said to move the schools towards the ideal position and increase student achievement (Ozdemir & Sezgin, 2002). From these findings, one can assert that an effective instructional leader creates the right school climate that enhances student's all round development in academic achievement and in making informed decisions such as subject choice thus excelling in life. The opposite would happen where instructional leaders are not effective.

Throughout the changes that have taken place in Kenya's educational system, KICD has always been mandated to establish a curriculum that would provide the youth with requisite knowledge, skills and attitudes that would be acceptable to Kenyan and international community (Republic of Kenya, 1999). This when applied to the study at

hand would imply that principals as instructional leaders play a crucial role in enhancing a positive school climate that would encourage the students to develop life skills such as decision making and be able to choose subjects wisely in order to compete favorably in local and international job markets upon accomplishment of their basic educational ladder. When principals fail in their instructional leadership role, it implies that students may fail to pursue subjects that would otherwise have created more career opportunities for them in future.

4.5 H02: Teachers' Support and Care has no Significant Relationship with Students' Subject Choice in Public Secondary Schools in Nairobi County

4.5.1 Teachers' Support and Care and Students' Subject Choice

Many scholars have done a lot of research on how students perceive school climate on their psychological, social and academic adjustment. Scholars who believe in ecological theories of development argue that students' experiences of their school environment, especially those that meet the developmental needs of adolescence such as interpersonal support, affect not only the academic adjustment but also their social and emotional well being (Kuperminc, Leadbeater, Emmons & Blatt, 1997; Roeser, Eccles & Sameroff, 2000). This may imply that their skills of decision making especially on matters appertaining to their subject choice may also be affected as they grow in their day to day interpersonal relationships in their academic journey.

The second objective of this study sought to determine whether there is significant relationship between teachers' support and care and students' subject choice in public

secondary schools. Teachers were requested to respond to 10 items prepared from Teacher relationship Inventory and communalities of the measured variables (TSRI), which is a fourteen item inventory which facilitates research on building supportive relationships between teachers and students (*Journal of Experimental Education*, 2005). Students were also requested to respond to seven items on teachers' support and care and their subject choice. Frequencies, means and standard deviations were used to interpret the data. The responses were ranging from strongly agree to strongly disagree on a five point Likert scale. Computation for teachers' support and care and students' subject choice was done using SPSS version 18 to get the means and standard deviation per school. Pearson Chi - square test of independence was applied to establish whether there was significant relationship between teachers' support and care and students' subject choice.

Teachers were requested to indicate whether they stayed back after the normal teaching to tutor students especially those that had difficulties in their subjects. The findings revealed that at a mean of 1.96 and standard deviation of 0.965, most teachers agreed they stayed after school to tutor the students while only a small percentage did not agree. (Refer to Table 16).

Table 16:

Teachers' Response on Teachers' Support and Care

Item	N	Mean	Std Dev
Teacher stay back to tutor students	120	1.96	0.965
Students depend on teacher for advice	120	2.02	0.809
Teacher accepts extra duties	120	1.64	0.807
Teacher likes students who answer questions	120	1.65	0.903
Students with home problems likely to seek help	120	2.28	1.014
Positive teacher-students relationship	120	1.63	0.636
Reporting students to principal	120	3.88	1.039
Some students frustrates teachers	120	2.88	1.468
Teachers like students who answer questions	120	1.65	0.913
Students agree to get extra help from teachers	120	2.19	1.007
Average mean	120	2.17	0.949

When asked to indicate whether students depended on teachers for advice, most teachers agreed at a mean of 2.02 and standard deviation of 0.809. These findings indicate that the highest percentage of teachers agreed that students depended on teacher's advice while a small percentage disagreed. This may imply that most students were able to get advice on issues appertaining to subject choice from their subject teachers or other teachers in the school. They were able to receive the moral support that a teacher should give to students who are to decide the subjects to choose .Those that were uncertain might have been those that were not sure on whether the students depended on teachers' advice or the formal knowledge attained in the normal learning process. It could also be an indication of teachers who did not give support to the students as revealed in this study.

Teachers were requested to indicate whether they normally accepted extra duties. Most of the teachers agreed at a mean of 1.64 and standard deviation of 0.807. Those that were able to go an extra mile in terms of duty call were more than those that disagreed. Indication of these findings would be that in cases where students needed more help on subject choice, the teachers were ready to assist whether during normal teaching time or when students approach them during their free times. It may also be an indication that should the principal as an instructional leader gives them extra duties that would enhance student subject's choice, most teachers would respond positively by giving the students the support they require. Learning in an institution requires time and positive atmosphere; it is a social activity even though it is an individual activity. Much of what students learn comes from interacting with other people and especially their subject teachers. Therefore the nature of the relationships they have may have a strong influence on the decisions they make in their choice of subjects.

Teachers were asked to indicate whether they liked students who answered questions when teaching. The findings reveal that most teachers agreed at a mean of 1.65 and standard deviation of 0.913. The findings indicated that most teachers liked students who asked questions compared to those who did not. This finding was to enable the researcher establish whether students who did not ask questions received support from their subject teachers and also whether teachers supported students that were very inquisitive. It is in the process of asking many questions that teachers are able to establish students' needs thus are able to accord the support required. These findings could be an indication of the teachers' support on their subject concerns thus enabling them to make informed decisions.

Teachers were asked to indicate whether students with a problem at home are likely to seek help from them. Most teachers agreed at a mean of 2.28 and standard deviation of 1.014 that students seek their help. These findings could be an indication of students' confidence of getting support from their teachers thus could confine with the teachers about a problem that is a bother to them. It also could be an indication that if a student has a problem about their subject choice, teachers would support them until they get a solution. The few that disagreed could represent the percentage of teachers who are in public secondary schools but are not willing to support the students when they have a problem. The possibility of a student getting support from the teachers according to these findings is higher than not getting the same. Implication of this according to the study is that students are likely to choose subjects where teachers gave them help when they required it.

Teachers were requested to state whether their relationship with the students was positive. Majority of the teachers agreed at a mean of 1.63 and standard deviation of 0.636.A positive relationship with the students encourages them to develop life skills such as decision making. These findings could be an indication that the positive relationship the teachers have with the students is a reflection of their support especially on issues related to subject choice. This further creates a positive school climate for the students to nurture their skills of decision making hence choice of subjects.

Teachers were requested to state whether they frequently reported students to the principal when they disagreed with them. Most of the teachers disagreed at a mean of 3.88 and standard deviation of 1.039. From these findings the indication is that most of the teachers did not report the students to the principals when they disagreed. This could

be an indication that the teachers were able to support students even when they had a conflict and could resolve it mutually without involving the leadership. This means in case of conflicts in subject choice the teachers were able to support them until a solution was attained. The few that reported could either be the cases that required the principals' intervention or it could refer to teachers who are not supportive to the students thus reported any conflict that occurred.

In a normal learning environment, a class may constitute not only the intelligent and disciplined students but also those who struggle in learning and the in disciplined. In order to establish whether teachers gave support to all types of students especially on matters pertaining to subject choice, teachers were requested to indicate whether some students frustrated them while teaching in class. Most of the teachers agreed at a mean of 2.88 and standard deviation of 1.468 that some students frustrated them while teaching. This was an indication that teachers taught in classes that had all variations of students, those that were easy to handle and also those that were frustrating. Few teachers disagreed and others were uncertain. These could be a representation of teachers who are in public secondary schools where they do not experience frustration from the students. The fact that teachers had described their relationship with students as positive meant that despite the frustrations they experienced from some students, teachers used their professionalism to still assist the students on matters pertaining to subject choice.

A teacher that supports students must have a liking for them so that when consulted on matters that pertain to subject choice they are able to offer the support required. One may like a student due to good discipline, or because he/she answers questions in class or performs in that particular subject, however, there's a non conditional liking that is

exercised by professional teachers in order to offer a student support in their course of learning. Teachers were requested to indicate whether they had a liking of the students they taught. Majority of the teachers agreed at a mean of 1.53 and standard deviation of 0.829. These findings indicate that most of the teachers liked their students. This implies that they are able to support and guide them on subject choice. A teacher would give minimum support to a student when they do not care for the same. The few teachers that disagreed were an indication of teachers who probably did not like their students which means they would be limited in their student support.

Teachers were requested to indicate whether students' agreed to get extra help from teachers. Most of the teachers agreed at a mean of 2.19 and standard deviation of 1.009.This may imply that, students with problems in particular subjects would seek help from the teachers after the normal learning time. This may also imply that teachers were supportive thus students would not shy in seeking extra help from them.

Teachers were further requested to indicate whether they discouraged weak students from choosing the subjects that they taught. The findings revealed that majority of the teachers agreed at a mean of 4.18 and standard deviation of 1.085 that they did not discourage the students from choosing their subjects (Figure 11). The few that agreed that they discouraged them could probably be those teachers who advised the students not to choose the subjects because the students were weak. The uncertain teachers were probably those who were not sure they could discourage the students from choosing their subjects even if they were weak because of KNEC requirement for examination taken at the end of the Form Four.

The interpretation of the findings is that teachers gave support and care to the students especially on matters that concerned their subject choice. This is evident also from the mean responses from the teachers as discussed earlier.

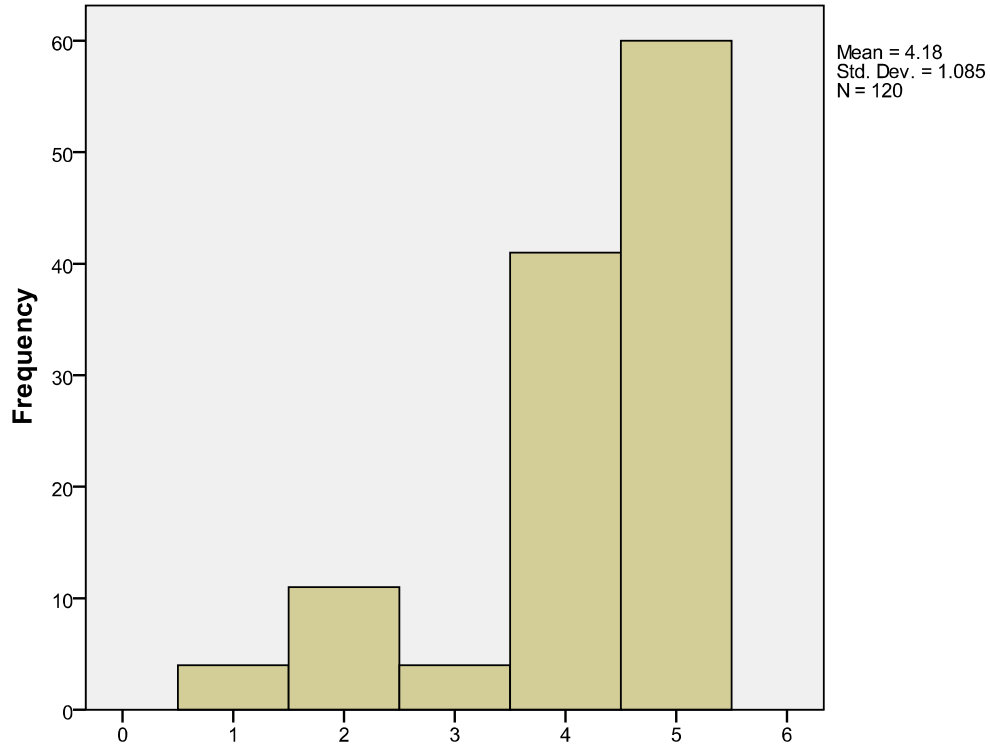


Figure 11: Teachers Discourage Weak Students Choose their Subjects

The average total mean of teachers' responses per school was 2.17 at Standard deviation of 0.949. This may be interpreted to mean that majority of the teachers supported and cared for the students thus were able to guide them on matters concerning subject choice. Teachers' support and care for students contributes to a positive school climate in that as the teachers engage the students in their support and care, students gain confidence and learning becomes interesting because they feel appreciated .This enhances their life skill development such as decision making. Positive school climate is greatly influenced by

interpersonal relationship, so when teachers are supportive and caring they enhance its creation. This further enables students to be more informed as they choose subjects.

4.5.2 Students' Response on Teachers' Support and Care and Subject Choice

Subject choice can be a very challenging experience for the students and as such require a lot of guidance and moral support from the school, teachers and family. Studies that have been done show that students develop keen interest in some subjects and little interest in others. Interest is said to be in two categories, situational and individual (Renninger, 1992, Trend, 2005). Situational interest is said to be generated by the immediate context such as a learning activity or a particular teacher and is generally short lived. These studies reveal that a teacher can be a determinant of whether students choose the subject they teach or not. This study had 7 items that were prepared and required students to indicate whether their teachers were supportive and caring. The purpose was to determine whether there was significant relationship between teachers' support and care and students' subject choice. Frequencies and means and standard deviation were computed using SPSS version 18 to enable interpretation of their responses.

Students were to indicate whether their teachers believed they can do well in their subjects. The findings revealed that at a mean of 1.81 and standard deviation of 1.069 most teachers believe that their students can do well in the subjects that they teach (refer to Table 17). This may indicate that because students have confidence that their teachers believe in them, they would prefer to choose the subjects of such teachers. The few that disagreed may indicate few teachers who find students having difficulties in their subjects thus do not believe the students can do well and may discourage them from choosing

them but encourage them to choose a better option. Students who were undecided may include those who were not sure whether their teachers believed they can do well or not.

Table 17:

Students' Response on Teachers' Support and Care and Subject Choice

Item	N	Mean	Std Deviation
Teachers believe student can do well	390	.81	1.068
Teacher work hard for student to do well	390	2.07	1.197
Teachers care about student	390	2.29	1.107
Teacher makes student feel good	390	2.63	1.295
Student can talk to teacher on personal problems	390	2.72	1.404
Teachers makes student do well	390	2.09	1.211
Choose subjects with extra time offered by teachers	390	4.04	1.172
Average mean	390	2.52	1.156

They were requested to indicate whether their subject teachers worked hard to make sure that students do well in their subjects. The findings revealed that those students who agreed that teachers worked hard to make them do well in their subjects were the majority at a mean of 2.07 and standard deviation of 1.197. This may imply that most of them chose the subjects taught by teachers who made them do well. Those who disagreed may include students taught by teachers who did not work hard to make them do well thus may probably not chose the subject except if it is a compulsory one. The undecided students may include those who thought the teachers were doing their normal duties of teaching.

Students were to indicate whether their teachers cared about them. The findings revealed that at a mean of 2.29 and standard deviation of 1.107 most of the students felt that the

teachers cared for them (refer to Table 17). This may imply that because of the teacher's care the students were able to discuss matters pertaining to subject choice and were getting the assistance required. The few that disagreed could indicate students who may have disagreed with their subject teachers in one way or another while being taught and may have been punished thus interpreting that those teachers do not care. Those that were undecided may imply students who do not know how to interpret when teachers care about them in the course of interactions with them.

Students were asked to indicate whether their subject teachers made them feel good any time they attended the lesson. Most of the students agreed at a mean of 2.72 and standard deviation of 1.404 that their teachers made them feel good when learning the subject (refer to Table17). Few disagreed most likely because they might have found the subject hard to understand thus associating the teacher with the way they felt while the few that were undecided may include students that were not interested in the subject. Students who felt good when learning would be more inclined to choosing that particular subject while those who do not feel good would opt for other subjects except where the subject was compulsory.

Students were asked to indicate whether they can tell their teachers about their personal problems, the findings revealed that most of the student's agreed at a mean of 2.72 and standard deviation of 1.402 (refer to Table 17).The findings revealed that the highest percentage of the students can tell their teachers their problems. This implies that incase of problems in subject choice students can communicate to their teachers who would give them the support required. The students that indicated that they could not share their problems could be a representation of students who are taught by teachers who do not

offer support to them. It could also be those who have discipline problems and as such are not willing to share their problems even if the teachers are ready to support them. This means that if the students have problems of subject choice they'd not be supported by their teachers because they have not made them aware.

When asked to indicate whether the teachers made them do well in their subjects, Majority of the students disagreed at a mean of 2.09 and standard deviation of 1.211 (refer to Table 17). These findings show that most of the students felt that teachers did not make them do well in their subjects. This could be because some students are self motivated and are able to perform even without a lot of teacher's input. It may also imply that the subjects the students chose matched their ability. The few that agreed that teachers made them do well may include average and below average students who require a lot of teacher's attention. Those who were undecided may include those who are not able to indicate whether they do well in their subjects because of their teachers or their own input. In terms of subject choice this may imply that some students may choose some subjects not because of their teacher's input but because of other factors such as parents, courses to be pursued in higher levels of learning, the school guideline, KNEC guideline and global labor market.

Students were asked to indicate whether they chose the subjects because the teachers gave them extra time. Most students agreed at a mean of 4.04 and standard deviation of 1.172. This may imply that most students who chose the subjects were given extra time by the teachers and probably were able to do well in the subject. Those who disagreed could include those students who felt they did not chose the subjects because of the extra time given but because the subjects were compulsory or because they were good at the

subject even without extra time offered by the teachers. The undecided ones could include those that might have felt that they chose the subjects because they were good at them and not because of the extra time offered.

Further computation was done to obtain a mean of the students' responses on teachers' support and care and subject choice per school. The average mean was 2.52 at a Standard deviation of 1.156. This implied that most students agreed that they got support and care from their teachers on matters concerning their subject choice. Pearson Chi-square test of independence was done to establish whether Teachers' support and care has significant relationship with students' subject choice.

4.5.3 H02: Pearson Chi-square Test Results on Teachers' Support and Care and Students' Subject Choice

Pearson Chi-square test was conducted on data collected from students on teachers' support and care in order to determine whether there was significant relationship between Teachers' support and care and students' subject choice. The findings revealed that x^2 value was 96.851 at degree of freedom of 16 and a p value of $p< .001$ (refer to Table 18).This is less than the level of significance of $p< 0.05$.The statistical interpretation of this is that there is a significant relationship between Teachers' support and care and students' subject choice. Null hypothesis (H0) which stated that there was no significant relationship between teachers' support and care and students' subject choice was rejected and the alternative (HA) was accepted. From these findings, one can infer that as teachers support and care for students, they influence their choice of subjects. It also reveals that they contribute to a positive school climate that has a significant influence on students' subject choice.

Table 18:

Pearson Chi-square Test on Teachers' Support and Care and Students' Subject Choice

	X^2 value	df	Asymp. Sig (2-sided)
Pearson Chi-square	96.851	16	.001
Likelihood Ratio	92.168	16	.001
Linear-by-Linear association	60.152	1	.001
N of varied cases	390		

The findings of the study agree with findings from a study that was done which is found in the collection of scholarly and creative works for Minnesota State University in Mankato, on support, life stress and behavioral outcomes in 103 youth (Huber, Sifers, Houlihan & Youngblow, 2012).The results revealed a significant interaction between teacher support and life stress, indicating teacher support moderated the effect of stress on externalizing problems. Teachers' sound support facilitates positive outcomes for children faced with risk. Teachers who support student are said to care, have empathy, trust, respect and fairness. Similarly, the study at hand revealed a significant relationship between teachers' support and care and students' subject choice.

A study that was done examining the relationship between teacher support, life stress and behavioral outcomes in 103 youths from Caucasian, Native American and Multi Racial revealed that there was a significant interaction between teacher support and life stress, indicating that teacher support moderated the effect of stress on externalizing problems. Teachers' sound support facilitates positive outcomes for children faced with risk thus those that support students are said to care (Education research international volume 2012). Similarly, having a positive and supportive relationship with teachers has been

shown to influence students' academic success (Parker & Asher, 1987; Wentzel, 2002). These findings show that teachers' student support is vital in a student's academic journey. It leads to the development of a social and academic climate that gives students a strong feeling of belonging because they feel wanted and nurtured by their teachers. This enables them to develop life skills of decision making, thus can wisely navigate to the right choice of the subjects to pursue as a result of positive influence by school climate.

4.6 H03: Students' Involvement in Learning Process has no Significant Relationship with Students' Subject Choice in Public Secondary Schools in Nairobi County

4.6.1 Principals' Students' Involvement in Learning Process and Subject Choice

The third objective of this study sought to establish the relationship between students' involvement in learning process and their subject choice. Five items were given to students requesting them to indicate whether the principals enjoyed working with them especially when they had issues related to subject choice or when the principal had some tasks that he wanted done by the students. The responses were ranging from strongly agree to strongly disagree on a five - point Likert scale. The total mean per school was attained by computing the responses using SPSS version 18.

Students were requested to indicate whether principals enjoyed working with them in any task. The findings revealed that, the highest percentage of the students agreed at a mean of 2.33 and standard deviation of 1.187 (refer to Table 19). This may imply that the principal involved the students in the school activities hence can be able to receive information about subject choice from the students and be able to take intervention

measures where required. Those who disagreed may probably include students from public secondary schools managed by principals who do not involve the students in the normal running of the school. The uncertain students were probably those that could not interpret clearly whether the principals enjoyed working with them or it was a normal learning process. When instructional leaders involve students in any task in school, they enable them own up the learning process and this makes choice of subjects their initiative because the principal has contributed to creating a positive school climate thus positively influencing students' subject choice. Where students are not involved, they interpret it as being forced to learn and therefore do not own the learning process. As a result of this, students fail to choose subjects of their passion. This affects their future career path.

Table 19:

Students' Responses on Involvement of Principals in Subject Choice

	SA %	A %	U.N %	D %	S.D %	Mean	Std Dev
Principal enjoy working with students	30	29	29	4	8	2.33	1.187
Students feel free to initiate communication with principal	20	26	18	15	20	2.90	1.415
Principal discusses problem with students and seeks their opinion	20	26	13	17	24	2.99	1.479
Principal give students chance to help in decision making	27	32	9	8	24	2.73	1.537
The principal has a process of students knowing school rules	42	39	9	5	5	1.96	1.116
Average total	28	30	16	10	16	2.58	1.347
5-Strongly agree 4-Agree 3-Uncertain 2-Disagree 1-Strongly disagree							

Students were requested to indicate whether they felt free to initiate communication on issues related to subject choice with the principal. The highest percentage of the students agreed at a mean of 2.90 and standard deviation of 1.415 (refer to Table 19). This may

imply that students in most public secondary schools are free to initiate communication with the principal therefore issues related to their subject choice and require the principals' attention can be attended to on time. Those that disagreed could include students from public secondary schools that had other channels of communication that could be followed such as the class teachers or the academic heads of departments instead of directly initiating communication with the principal. Those that were undecided may include students from public secondary schools who were not confident of approaching the principal especially in cases where the principals did not have open channels of communication with the students.

Students were further requested to indicate whether the principal discusses school related problems with students and seeks their opinions and feelings about the problem especially those that are related to students' subject choice. The findings revealed that the highest percentage of the students agreed at a mean of 2.99 and standard deviation of 1.479 that principals discussed school related problems with them and sought their opinions and feelings about the problem (refer to Table 19). This may connote that in regard to subject choice, any problem arising would be discussed and students would also be involved in order to have amicable solutions. Students who disagreed may include those from public secondary schools where principals discussed school related problems of subject choice with class teachers or any other teachers without involving the students. Those who were uncertain were probably those from schools where the principals may involve only the students' leaders.

Some principals may involve the students in discussing school related problems of subject choice and be able to establish their opinions and feelings and not involve them in

decision making. To establish whether students were involved in decision making, students were requested to indicate whether the principal gave students a chance to help in decision making especially on subject choice. The findings revealed that most of the students agreed at a mean of 2.73 and standard deviation of 1.537 that the principals gave students a chance to help in decision making (refer to Table 19). This implies that students were able to discuss and make decisions on matters that appertained to subject choice with the principals' moral support. This kind of involvement enables students to develop the skill of decision making which is required when making decisions on the subjects to pursue. It is an indication of a positive school climate. Those students who indicated that the principals did not give them a chance to help in decision making may be a representation of students from schools that had programmes that already stated how subjects should be chosen hence did not require students' input. The few students that indicated that they were undecided may include students that were in schools where they were not very sure of their principals giving them chance to help in decision making. Schools with such principals are said to have a negative school climate and this negatively influences students' choice of subjects.

Students were requested to indicate whether principals in their schools had a process that enabled them know school rules and especially those related to subject choice. The findings revealed that most of the students agreed at a mean of 1.96 and standard deviation of 1.116 that the principals had a process that enabled them know the school rules especially those related to subject choice (refer to Table 19). Knowledge of the existing rules in a school enables the students know what is expected of them thus can make informed decisions on subject choice. Rules guide interpersonal relationship in

every learning institution therefore knowledge of what is expected of students enhances a positive school climate that can positively influence their subject choice. Effective instructional leadership demands that the leader puts in place a process that enables awareness to the stakeholders to enable them meet institutional expectation. Students would make informed decisions on subject choice based on the rules set within the institution.

An effective instructional leader is one who invests on development of students' leadership. As they do this, the rest of the students get involved in the task of learning through the students' leaders. This not only enhances interrelationship between the leadership and the students but also encourages creativity and decisiveness from the students' leaders. These trickles down to the rest of the students in school who keep maturing in their skill of decision making thus can make wise decisions on subject choice and also communicate any concern of the same to the leadership on time. This ability of a principal being able to involve students in running of the school is what contributes to a positive school climate among other factors. It keeps the principals abreast with day to day happenings of the students' learning thus when challenges occur on issues of subject choice they would be able to offer solutions on time hence making the students to pursue the subjects of their choice.

As discussed earlier, meaningful student involvement in schools prepares students for a life time of participation in the communities and in a nation. Alfie Kohn (1993) in his book, choices for children, why and how to let students decide, said that meaningful student involvement in school decisions has four distinct outcomes on school climate. It has effects on general wellbeing of students, effects on behavior and values, effects on

academic achievement and effects on teachers. He continues to say that teachers and students must hold each other accountable for all their decisions and actions. Through effective empowering opportunities to use their voice, experience and knowledge to make meaningful decisions, all students can have ownership in their learning and investment to succeed. From this assertion, it is very clear that students' involvement is crucial in their learning process and it involves a lot of decision making. This helps the students to make the right decisions in subject choice.

The mean attained from the students' responses per school was 2.58 at standard deviation of 1.347. These findings may likely be a reflection of the fact that despite the involvement of students on matters of subject choice there are other moderating factors such as the guidance given by KNEC and KICD which is beyond the principals' control and must be adhered to in all public secondary schools in Kenya. In order to determine whether there was significant relationship between students' involvement in learning process and students' subject choice, data collected from students was computed using Pearson Chi-square test of independence.

4.6.2 H03: Pearson Chi-square Test Results on Students' Involvement in Learning Process and Students' Subject Choice

The study sort to establish whether there is significant relationship between students' involvement in learning process and students' subject choice. This was done through Pearson Chi-square test of independence. The findings revealed that x^2 value was 138.744 at degree of freedom of 16 and a p-value of $p< .001$.This value was less than the level of significance of $p<0.05$(refer to Table 20).The findings could statistically be interpreted to imply a significant relationship between students' involvement in learning

process and their subject choice. Null hypothesis (H0) which stated that there was no significant relationship between students' involvement in their learning process and student's subject choice was rejected and the alternative (HA) was accepted. This means that there is significant relationship between school climate and students' subject choice.

Table 20:

Pearson Chi-square Test on Students' Involvement in Learning Process and Subject Choice

	X^2 value	df	Asymp. Sig (2-sided)
Pearson Chi-square	138.744	16	.001
Likelihood Ratio	129.262	16	.001
Linear-by-Linear association	85.079	1	.001
N of varied cases	390		

These findings agree with studies that have been done which reveal that students who have extensive involvement with teachers, who sometimes serve as confidents, mentors and friends (Lynch & Cicchetti, 1992). Meaningful student involvement in schools prepares students for a life time of participation in the communities and in a nation. It has effects on general wellbeing of students, effects on behavior and values, effects on academic achievement and effects on teachers. Alfie (1993) says that teachers and students must hold each other accountable for all their decisions and actions. Through effective, empowering opportunities to use their voice, experience and knowledge to make meaningful decisions, all students can have ownership in their learning and investment to succeed.

Huddleston (2007) stated in his writing (From student voice to showed responsibility: Effective Practice in Democratic School Governance in European Schools) that students' participation in decision making can lead to improved school policies and practices. It can support the successful development and implementation of school initiatives and strengthen democratic process within the school. Students' behaviour is improved within and this contributes positively to school and community environments. As they participate, better relationships between students, teachers, parents and wider community are facilitated due to improved understanding and responsiveness to issues identified by students. From this assertion, it is clear that students' involvement is crucial in their learning process which involves a lot of decision making in all endeavors of their school life including their subject choice.

4.7 H04: Availability and Maintenance of Learning Facilities and Resources has No Significant Effect on Students' Subject Choice in Public Secondary Schools in Nairobi County

4.7.1 Availability and Maintenance of Learning Facilities and Resources Effects on Students' Subject Choice

The fourth objective of this study sought to examine the extent to which availability and maintenance of learning facilities and resources affect students' subject choice. The availability and quality of resource materials and appropriate facilities have a great influence on curriculum implementation (Republic of Kenya, 2010). Several scholars such as Ayoo (2002), Eshiwani (1993) and Mutua (2002) cited by Kamau (2005) agree that school facilities such as classrooms, laboratories, desks and books have a direct bearing on good performance among students in developing countries. In addition, McAliney (2009) also agrees by saying that resources in education play a very important

role in facilitating learning. Education resources include both teaching personnel and materials such as books and non book materials and any other learning environment that provides a learning experience to a learner. Education resources are therefore selected and used to stimulate interest and motivate learning. This being the case as revealed by studies done, there was need to examine the extent to which availability and maintenance of learning facilities and resources influence students' subject choice.

Two items were prepared and students were requested to respond to a five –point Likert scale varying from strongly agrees to strongly disagree. Frequencies means and standard deviations of the students' responses were computed using SPSS version 18 to enhance interpretation.

Students were requested to indicate whether the principal ensured availability and timely repair of learning facilities and resources. The findings revealed that most of the students agreed at a mean of 2.80 and standard deviation of 1.478 that their principals availed and ensured timely repair of learning facilities and resources (refer to Table 21).

Table 21:

Student's Response on Principals' Availability and Maintenance of Learning Facilities and Resources

	SA	A	U.N	D	S.D	Mean	Std Dev
	%	%	%	%	%	%	%
Principal ensures timely repair of facilities	30	29	6	15	20	2.80	1.478
Principal set rules on student's care of facilities and learning resources	38	39	9	7	7	2.04	1.152
Average Total	34	34	9	9	14	2.42	1.315

S.A -Strongly agree A- Agree U.N-uncertain D-disagree S.D-Strongly disagree
No of students 390

However, a good percentage (21%) of them disagreed thus implying that some principals in some schools did not ensure availability and timely repair of the learning facilities and resources, this could be attributed to insufficient funds of maintenance in the school or inefficient instructional leadership hence a negative school climate that may influence student's subject choice. One of the roles of instructional leadership is to avail and maintain learning facilities and resources because these are a requirement for effective curriculum implementation Verspoor (2008). This has either positive or negative implication on students' subject choice. School climate is said to be positive when learning facilities and resources are not only availed but also maintained. This enables the students to have wider choice of subjects because the school has what it takes to offer the subjects. When the same is not availed students are limited in their choice. Most students' responses on the subjects they choice revealed that few students chose optional subjects

such as Physics, Geography and Creative art subjects compared to the number of students in such public secondary schools. This was an indication of insufficient learning facilities and resources. As a result of this as indicated earlier, most principals had put down rules that controlled the number of students that chose the subject.

Students were further requested to indicate whether the principal had set rules on how they should take care of learning facilities and resources in the school. The findings revealed that the highest percentage of the students agreed at a mean of 2.04 and standard deviation of 1.152 that the principal had set rules that guided the students on how to take care of the learning resources and facilities (refer to Table 21). This means that since the principals had set rules, students were involved in taking care of the resources and maintaining them so that they'd be sufficient for the subjects they would choose. Those that disagreed may be students from schools that the principals did not have set rules thus students were not involved in maintenance of the resources. Few students were undecided. These could include students from schools that had rules but may not have been in direct relation to the resources. The average mean per school on availability and maintenance of learning facilities and resources was 2.42 at a Standard deviation of 1.315 (refer to Table 21).This meant that students agreed that the principals availed and maintained learning facilities and resources. This implies that students could choose the subjects that required the use of such facilities and resources.

In order to establish whether availability and maintenance of learning facilities and resources influenced students' subject choice, students were requested to indicate the reasons why they chose the subjects they were studying. The findings revealed that most of the students agreed at a mean of 2.76 and standard deviation of 1.471 that they chose

the subjects because learning facilities and resources were availed and maintained (refer to Table 22 and Figure 12).Those students that said that they chose the subjects because the facilities and resources were well maintained were about 70% (273)compared to those who said they chose the subjects because of peer influence, availability of laboratory instruments and teachers attention 30% (117).

Table 22:

Students' Response on Why they Chose the Subject

Item	Frequency	Percentage
Peer influence	15	4
Availability of laboratory instruments	24	6
Teachers attention	78	20
Well maintained facilities	273	70
Total	390	100
Mean 2.76	Std Dev 1.471	

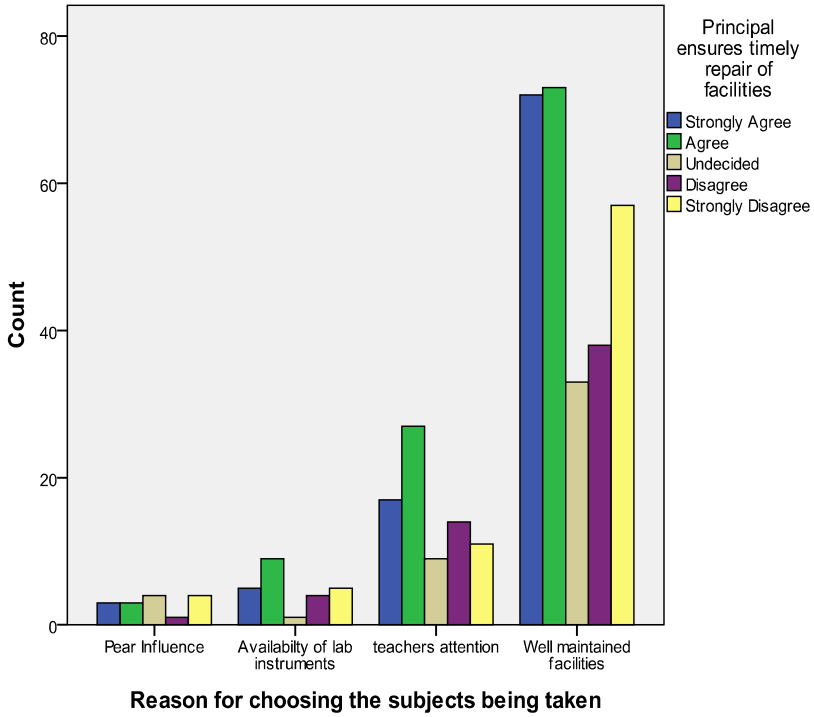


Figure 12: Students' Response on Why they Chose the Subject

In order to establish whether learning facilities and resources were made available to teachers also, they were requested to respond to two items on availability and replenishing. Teachers were requested to indicate whether the principals availed learning facilities and resources. Most of the teachers agreed at a mean of 2.44 and standard deviation of .960 (refer Table 23) that the principals availed them. These findings may be an indication that most of the principals availed the facilities and resources required for the effective learning. This may likely be a contribution to a positive school climate which enhanced students' subject choice among other factors. Teachers that were uncertain on whether the principals availed the facilities and resources and those who disagreed may possibly be a representation of teachers from schools where learning facilities and resources were not available most probably because of insufficient funds or

probably the resources were availed but not sufficient to encourage the students to choose the subjects that were directly related to them.

Table 23:

Teachers' Response on Principals' Maintenance of Physical Facilities and Learning Resources

Item	SA	A	U.N	D	SD	Mean	Std Dev.
Learning facilities and resources are made available	34	60	5	1	0	2.44	.960
Learning facilities and resources are constantly replenished and maintained	13	52	15	20	0	1.73	.594
Average total	23.5	56	10	10.5	0	2.09	.777

1 S.A-strongly agree 2 A-agree 3 U.N-uncertain 4 D-disagree
5 S.D-strongly disagree No.120

The study requested teachers to indicate whether the principal constantly replenished learning facilities and resources. Most of the teachers agreed at a mean of 1.73 and standard deviation of 0.594 that principals constantly replenished and maintained the learning facilities and resource (refer to Table 26). This may have created a positive school climate which enhanced students' subject choice. The few who disagreed may have implied that principals from such schools did not replenish the learning facilities and resources thus students who would require choosing subjects that required such facilities and resources would be limited because of lack of the required enabling environment-positive school climate for subject choice. Few teachers who were uncertain might have been teachers from schools whose principals were not keen in replenishing

the facilities and resources thus leading to negative school climate which limited students' subject choice.

Principals were given four items requesting them to indicate whether they had a maintenance plan of the available learning facilities and resources. They were requested to indicate whether they had a plan of maintaining the learning facilities and resources in their schools. The four items for the principals were prepared from the scale used to measure school climate (Freiberg & Stein, 1999).The highest percentage of the principals at a mean of 3.22 and standard deviation of 1.592 indicated that they had maintenance inventory and had laid down maintenance strategy (refer to Table 24). The study found that all the principals had maintenance plan thus may have been able to avail the required facilities and resource which would create a learning environment-positive school climate that would enable the students to get a wider exposure of subjects from which they could get their choices. These results are the same as those of students' and teachers' responses on the maintenance of learning facilities and resource which revealed that all the principals had a plan for availing and maintaining learning facilities and resources.

Table 24:

Principals and Maintenance Plan of Learning Facilities and Resources

Item	Frequency	%
School workshop	4	13
Skilled maintenance employee (s)	12	40
Established maintenance inventory book	1	4
Has laid down maintenance strategies	13	43
Total	30	100
Frequency (f) Mean 3.22 Std Dev 1.592		

Principals were given 13 items and were requested to indicate whether they had a maintenance plan for learning facilities and resources. Their responses were based on a four-point Likert scale ranging from Always, Often, Sometimes or Never. The findings revealed that the average mean per school was 1.96 at a standard deviation of .814 (refer to Table 25).This may be an indication that the principals had a maintenance plan for learning facilities and resources in public secondary schools however some of the principals indicated that they had a maintenance plan sometimes as indicated by the responses where majority of the principals indicated that they maintained the facilities sometimes. This may also imply the challenges that principals experienced in regard to maintenance of physical facilities and learning resources despite having a maintenance plan. The findings on why students chose the subjects revealed that most of the students indicated that it was because the physical facilities and learning resources were well maintained thus were available. This implies that without proper maintenance students would not be able to choose the subjects they desired because the facilities and resources required would be insufficient or unavailable. However, it is possible for students to choose particular subjects in their schools despite insufficient maintenance of learning facilities and resources because of the compulsory requirement from KNEC on choice of subjects that are to be examined by the end of Form Four. As stated earlier, every student in Kenyan secondary schools is expected to choose at least two science subjects, two languages, humanity and creative art subjects as desired.

Table 25:

Principals' Maintenance of Physical Facilities and Learning Resource

Item	Mean	Std. Deviation
Dormitories	2.23	1.194
Classrooms	1.60	.675
Playing ground	1.97	.809
Library	2.50	.974
Chairs	1.87	.571
Administration block	1.83	.699
Dining hall	2.33	1.155
Laboratories	1.78	.732
Desks	1.70	.651
Toilets	1.86	.743
Teacher textbooks	1.80	.847
Students text books	1.90	.845
Charts and maps	2.33	.758
Teaching guide	1.73	.740
Average Total	1.96	.814
1 N- Never 2 S-Sometimes 3 O-Often 4 A –Always	No.30	

The studies also sought to examine whether there was significant effect of availability and maintenance of learning facilities and resources on students' subject choice. This was done through Pearson Chi-square test of independence

4.7.2 H04: Pearson Chi-square Test Result on Availability and Maintenance of Learning Facilities and Resources Effect on Students' Subject Choice

Pearson Chi-square test was done on the data collected from the teachers' responses on maintenance of learning facilities and resources and students subject choice in order to establish whether there was significant effect of availability and maintenance of learning

facilities and resources on students' subject choice. The findings revealed that the x^2 value was 16.826 at a degree of freedom of 8 and a p value of .032 (Table 26). This was less than the level of significance of $p \leq 0.05$.This implies that there was significant effect of availability and maintenance of learning facilities and resources on students subject choice. Null hypotheses (H0) which stated that there was no significant effect of availability and maintenance of learning facilities and resources on students' subject choice was rejected and alternative hypothesis (HA) which stated that there is significant effect of availability and maintenance of learning facilities and resources on students' subject choice accepted.

Table 26:

Pearson Chi-square Test on Availability and Maintenance of Learning Facilities and Resources and Students' Subject Choice

	x^2 value	df	Asymp. Sig (2-sided
Pearson Chi-square	16.836	8	.032
Likelihood Ratio	16.694	8	.033
Linear-by-Linear association	4.600	1	.032
N of varied cases	390		

Maintenance of learning facilities and resources play a crucial role in the learning of the student. Many research findings contribute this to the belief that school facilities design, physical building conditions and overcrowding impacts student achievement and behavior (Neil, 2000). School officials must not only deal with the students in the prevention of misbehavior and violence, but also on the physical nature of the school's building (Kennedy, 2003).

The study findings agrees with Verspoor (2008) who says that international research has consistently demonstrated the positive effect of textbooks on students' learning especially in secondary education. He argues that without an adequate supply of textbooks, students are unlikely to achieve expected levels of learning. This may be interpreted to imply that without maintenance of learning facilities and resources, students' subject choice would be affected.

The results of Pearson Chi square tests done on all the independent and dependent variables of this study reveal that there is significant relationship between school climate and students' subject choice. School climate in this study was limited to principals' instructional leadership role, Teachers' support and care, students' involvement in the learning process and maintenance of learning facilities and resources. Subject choice was limited to Form three students, and did not consider particular subjects chosen but focused on establishing whether there was significant relationship between school climate and students' subject choice.

One-Way ANOVA test was done to all the means of the four independent and dependent variables of the thirty schools to establish whether there was statistical significant difference between the means. One-Way ANOVA test results revealed that $(F(3, 26)) = 3.175$, p -value of .041.The p-value was less than the level of significance of $p \leq 0.05$. This implies that there is a significant effect of school climate on students' subject choice (Table 27).

Table 27:

One Way ANOVA on Relationship between School Climate and Student's Subject Choice

	Sum of squares	df	mean square	f	sig
School climate and subject choice	12.200	3	4.067	3.175	.041
Sciences, Humanity Creative Arts	33.300	26	1.281		
Total	45.500	29			

The study revealed that there is significant relationship between school climate and subject choice as shown by the fact that all the p values from all the tested variables were less than the level of significance of $p \leq 0.05$ thus statistically an indication of significant relationship between school climate and student's subject choice. These findings agree with other findings of the studies that have been done on school climate in other parts of the world.

A study finding was presented in Australian association for research in education annual conference in 2005 which examined the spread of choices that students are presented with and some limitations on these choices. It also examined the processes that students follow in making their subject choices and their implications. The findings revealed that the interviewed students identified several restrictions to their freedom of choice from the pool of possible subjects. It also revealed that the spread of subjects offered to students depends to a large extent on the particular school's ethos and focus. Ethos and school focus are part of what makes the type of school climate found in secondary schools as discussed earlier. This can be interpreted to mean that the choice of subjects is

determined by the school climate as revealed by the findings of the study at hand which agrees with the findings presented in that conference.

These findings also agree with studies done which indicate that school climate that is conducive enhances learning. Since learning is as much a social activity as it is an individual activity, much of what students learn come from interacting with other people. Thus the nature of the relationships among the people at the school will have a strong influence on students' learning (A guide to parents and communities seeking excellence in Education, 1994).This implies that there is significant relationship between school climate and the learning of students which enables them to have skills such as decision making and this enables them to make the right choice of subjects. This can be influenced positively or negatively depending on the type of school climate existing in a given school.

In his definition of school climate, Pashiardis (2000) said that it is the collection of an organization, the overall atmosphere that one senses on entering a school. He continued to say that it is the quality and character of school life based on patterns of students, parents and school personnel. A school reflects norms, goals, values, interpersonal relationship, teaching and learning practices, organizational structures, learning resources and facilities. From this definition, one may conclude that every concerned party that makes the totality of school climate is obliged to put measures into place to make sure that positive school climate exists in secondary schools so that students are able to choose subjects wisely as revealed in this study findings, there is significant relationship between school climate and students' subject choice. This implies that institutions that have school

climate that is positive would influence students' subject choice positively while those with a negative one would influence them negatively.

Kenya's Vision 2030 is the nation's new development blueprint which aims at transforming the country into a newly industrializing, middle income country providing high quality of life for all its citizens by the year 2030. (Republic of Kenya, 2007).The education goal for the vision is "to provide globally competitive quality education, training and research for development." This is to be achieved through increasing access to education, improving the transition rate from primary to secondary schools and raising the quality and relevance of education. This being the case, school climate is of paramount importance because it determines effective learning thus enabling students to develop life skills such as decision making which enables them to make informed decisions in subject choice. This would further culminate to quality education in the University that is envisioned. This would place Kenyan students in a more favorable competitive position both in local and global labor market. If school climate is negative, students would have limited opportunities in the labor market because of limited career path.

Two of the objectives of secondary education in Kenya stipulate that education should promote experience, growth of the whole person through integrated development of mental, physical and emotions (moral, spiritual and esthetic attributes and abilities, beyond the primary experience). It should promote communication skills, numeracy, scientific concepts and skills (reasoning, problem solving, creating technological applications of science among others) (MOEST, 2003).This means that every secondary school should have a school climate that enhances achievement of the objectives not

only for academic excellence but also for nurturing of life skills such as decision making that can enhance students' subject choice. Subject choice is attributed to various significant relationships as revealed by the findings in this study. However the skill of decision making is vital in enhancing the choices. No wonder then the need for a positive school climate that would encourage students' development in such skills.

Also, a study done in Mauritius by Jayantee (2011) on factors affecting the choice of science subjects among girls at the end of the third year of secondary education revealed that teaching approaches were mainly traditional and that both girls and boys preferred hands on activities and contextual examples reflecting real –life situations. The majority of the girl's experiences of science were negative and this deterred them from taking science subjects beyond the compulsory level despite having information of the importance of the subjects. Teachers had positive opinions about girl's ability to do sciences but stated that lack of infrastructure facilities did not allow them to involve pupils in practical work as much as they wish. From these finding one may deduce that in regard to the study at hand, students' subject choice is affected by the type of school climate found in a particular school.

The variables that were tested in the study above are related to some of the ones tested in the study at hand which are indicators of school climate. One of the variables studied in the study at hand was on establishing whether there was significant effect of availability and maintenance of learning facilities and resources on students' subject choice. The findings revealed that there was significant effect on students' subject choice. This agrees with the findings of the study at Mauritius especially where choice of science subjects is concerned. Most public secondary schools that did not have sufficient learning facilities

such as laboratories controlled the number of students that chose the subjects that required use of the facilities. For example most schools encouraged students to take Biology and Chemistry as the two required sciences while they controlled the number of students who chose Physics. Such schools would be said to have a negative school climate as far as choice of subjects is concerned in relation to availability and maintenance of learning facilities and resources. Those that had sufficient facilities and resources allowed the students to choose all the three sciences thus giving them a wider career path from which they can select what to pursue in universities and colleges.

The study revealed that there are two types of school climate that may be found in public secondary schools in Kenya; schools that have positive school climate and those with negative school climate. Those with positive school climate were characterized with instructional leaders who involved the students in decision making, provided learning facilities and resources and engaged the teachers. As a result of this students were able to choose subjects freely thus exposing them to a broader path of career opportunities in future. For example, out of 30 public secondary schools sampled for the study, 15 were able to expose the students to a choice of the three sciences-Biology, Chemistry and Physics. In such schools, the laboratories and science equipments were sufficient thus encouraging the students to choose the three sciences. The study revealed that in the other15 public secondary schools, students were not able to choose the three sciences because the resources required were insufficient thus the instructional leaders in such schools had developed a method of limiting the students. This in turn jeopardizes the students' career ambition. Such schools according to this study would be referred to as having negative school climate.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter summarizes the findings of the study and presents conclusions, recommendations and suggestions for further research. The purpose of this study was to establish whether there is significant relationship between school climate and students' subject choice in public secondary schools. The study was carried out in Nairobi County, Kenya. The study was limited to relationship between principals' instructional leadership role, Teachers' support and care, Students' involvement in learning process, availability and maintenance of learning facilities and resources and students' subject choice. Thirty secondary schools in Nairobi County were sampled. Questionnaires were administered to 30 principals, 120 teachers (Academic H.O.Ds) and 390 students.

5.2 Summary of the Findings

The study findings revealed that there was significant relationship between school climate and students' subject choice. As discussed earlier, the study was limited to four variables which was a part of the school climate. Principals' instructional leadership role had significant relationship with students' subject choice as revealed by x^2 of 30.153, at Degree of freedom (df) of 16 and P-value of $p \leq .017$.

Teachers' support and care had significant relationship with students' subject choice at x^2 value of 96.851 at degree of freedom of 16 and p-value of $p \leq .001$.

Students' involvement in their learning process had significant relationship with students' subject choice as revealed by x^2 value of 138.744 and degree of freedom of 16 and p - value of $p \leq .001$.

Availability and maintenance of learning facilities and resources had an effect on students' subject choice as revealed by x^2 value of 16.836 and degree of freedom of 8 at p-value of $p \leq .032$. Chi-square value for all the four variables that were under study was less than the level of significance of 0.05.This means that there existed a statistical dependence between school climate and students' subject choice thus a significant relationship between the two.

One-Way ANOVA test results revealed that $(F (3, 26))=3.175$, p-value of .041.The p-value was less than the level of significance of $p \leq 0.05$.This implies that there is a significant effect of school climate on students' subject choice. This further affirms the study findings on Chi-square that showed that there is significant relationship between school climate and students' subject choice.

Institutions of learning are very important because they are designed to equip students with skills, knowledge and dispositions' to meet their needs for future citizenship and participation in economic life. This requires positive school climate that enhances wholesome development of students who can make wise decisions not only in subject choice but also in other aspects of life. All stake holders have a duty of ensuring that whatever it takes to have positive school climate is sufficiently provided. This is because it has future implication on the decisions that students make especially on subjects to pursue for their future career.

Any negative school climate that may deny students' opportunities for subject choice would imply future loss of human resource that ought to have been harnessed while still in high school. For example, students who fail to do Physics due to insufficient resources in some schools loose about forty degree opportunities while those who fail to take Geography loose about sixty degree opportunities in Kenyan public universities (Joint admission board 2011). A positive school climate would create an enabling environment thus exposing the students to a broader curriculum that gives them many career paths in the future.

These findings reveal a need to intensify on creating or improving the existing school climates in Public secondary schools so that students can have what it takes to choose subjects of their interest depending on their future aspirations. All the stake holders should be more informed on the importance of subject choice and contribute to its success. In his forward on Global Monitoring Report (2016), the director general of UNESCO stated that a sustainable future is about human dignity, social inclusion and environmental protection. Sustainable development cannot happen without a healthy planet. Embarking upon the new education has the power like none else to nurture empowered, reflective, engaged and skilled citizens who can chart the way towards a safer, greener and fairer planet for all (Global Education Monitoring Report, 2016).This would be achieved better when schools have positive climate that nurtures wholesome development of the learner hence making the right decisions on subjects that would enhance wider career paths.

5.3 Conclusions of the Study

The following conclusions were drawn from the study findings:

i. Principals' instructional leadership role has significant influence on students' subject choice. They determine outsourcing and maintenance of learning facilities and resource. They manage all the stakeholders and ensure communication is effective by holding meetings and involving each party to participate so that positive school climate is enhanced. This influences students' decision on subject choice depending on the effectiveness of the role played by the principal as an instructional leader.

ii. Teachers' support and care has significant influence on students' subject choice. The evidence of their support and care is interpreted when they stay back to tutor students, advice them on personal problems, help them perform in the subjects they teach and maintain positive relationship with them. As a result of this, significant relationship is established which influences their subject choice. All this implicates a positive school climate which enhances students' subject choice.

iii. Students' involvement in learning process has significant relationship with students' subject choice. Students are involved by principals when they discuss school related problems with them and seek their opinions about the problem, when principals enjoy working with them and when students feel free to initiate communication with the principals. They are also involved when the principals encourage students' leadership. Teachers also involve them when they engage them in owning up the learning process and choice of subjects. As a result of

involvement significant relationship is established which affects students' subject choice.

iv. There was significant effect of availability and maintenance of learning facilities and resources on students' subject choice. Principals ensured timely repair of physical facilities and learning resources, they had set rules on how students should take care of physical facilities and learning resources in schools. Principals availed learning facilities and resources and constantly replenished them. They also had a plan of maintaining learning facilities and resources in their schools. This leads to significant effect on students' subject choice.

5.4 Recommendations

In view of the study findings, the following recommendations were deemed appropriate:

i. That the Ministry of education should formulate follow up guidelines that would encourage instructional leaders to create positive school climate that would enhance wholesome development of students in secondary schools so that acquired skills of decision making can enable them to make informed decisions on subject choice. This would ensure that the stipulated ministerial guidelines are totally implemented in all secondary schools.

ii. Generated knowledge from the study can be used by KEMI during in service training of principals. They can enlighten them on the role of a principal as an instructional leader in regard to students subject choice. Seminars can also be organized for H.O.Ds and other teachers in order to enlighten them on the need for students' support and care.

iii. The government through the Ministry of Education should formulate ways of measuring or assessing school climate. Such measurements would provide useful data on school's areas of strength and weaknesses. This would ensure they both meet or exceed state policies and create a positive school climate.

iv. There is need to enhance students' subject choice, KICD should formulate a manual that would enlighten instructional leaders on how to outsource, maintain and replenish learning facilities and resources. Curriculum formulated by KICD is effectively implemented by teachers found in institutions that have instructional leaders that maintain learning facilities and resources.

5.5 Suggestions for Further Research

Several issues emerged at the course of the study but could not be included in this study because of the limitations of the variables under study. The following are possible areas suggested for further research:

i. Similar studies on relationship between school climate and students' subject choice could be replicated in other Counties other than Nairobi.

ii. A study can be conducted to establish whether maintenance of physical facilities and learning resources enhance students' development in sense of responsibility.

iii. A study can be done to establish whether principals' instructional leadership role has significant relationship with students' K.C.S.E. performance.

iv. A study can be done to investigate whether teacher-student support enhances curriculum implementation.

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APPENDIX A

TRANSMITTAL LETTER

MAASAI MARA UNIVERSITY

P.O. BOX 861

NAROK

4th March 2013

TO

THE PRINCIPAL

Dear Sir/Madam,

REF: REQUEST TO CONDUCT A RESEARCH STUDY IN YOUR SCHOOL

I am a PhD student in the department of Education and Social Sciences in Maasai Mara University. I am currently carrying out a research on: **The Relationship Between School Climate and Students' Subject Choice in Public Secondary Schools in Nairobi County, Kenya**. I am seeking your permission to administer questionnaires to teachers and students in your school. All information will be treated with utmost confidentiality and will be used only for research purposes.

Thank you for your co-operation.

Yours faithfully

Mercy Wambui

APPENDIX B

PRINCIPALS' QUESTIONNAIRE

Please you are requested to spare sometime and respond to all the questions. The responses you give shall be treated with confidence. You are therefore asked not to write your name or any other form of identification.

DEMOGRAPHIC INFORMATION

1. What is your gender? Male [ ] Female [ ]
2. What is your highest professional qualification?

   B.Ed [ ] BA (with PGDE)[ ] BSc with PGDE [ ] M.Ed [ ]

   Any other……..
3. For how long have you been a principal?

   1-5 years [ ] 6-10 years [ ] 11-15 years [ ] 16-20 [ ] 21-25years [ ]

   26-30 year [ ] 31-35 years [ ] 36-40 years [ ] 41 years and above [ ]
4. What is the category of your school?

   District boys day sec sch [ ] District Girls day sec sch [ ] District boarding sec sch [ ]

   County boys day sec sch [ ] County boys boarding sec sch [ ] County girls day sec sch [ ]

   County girls boarding sec sch [ ] National boys sec sch [ ] National girls sec sch [ ]
5. What is your students population

   Below 200 [ ] 201 – 400 [ ] 401 – 600 [ ] 601 -800 [ ]

   Above 801 [ ]

SECTION B: MAINTENANCE OF PHYSICAL FACILITIES AND LEARNING RESOURCES

Please respond by putting a tick [√] to indicate how well physical facilities and learning resources are maintained.

KEY: 1 very well 2 little maintenance 3 None

Physical facilities	**VW**	**LM**	**N**
6. Dormitories (if applicable)			
7. Classrooms			
8. Playing ground			
9. Library			
10. Chairs			
11. Staff room			
12. Administration offices			
13. Dining hall			
14. Laboratories			
15. Desk			
16. Toilets			
17 Departmental offices			
Learning resources			
18Teachers text books			
19Teachers guides			
20 Students text books			
21.Charts and maps			

22 What challenges do you face in terms of physical facilities and learning resources?

_____

23 To what extent do you outsource for physical facilities and learning resources in your school? Never [ ] A little [ ] Often [ ] Always [ ]

24 State the number of times you have staff meetings and briefs with your teaching staff.

Once a week [ ] Once a term [ ]

Once a month [ ] Any other [ ]

25 How do your students choose the subjects for K.C.S.E?

It is pre programmed on admission in form one [ ]

They choose within subject combinations [ ]

Students choose with teachers by discussion [ ]

They choose freely with no limitations of subject combination [ ]

Students are programmed into choices depending on performance [ ]

Other (please explain)_____

26 How do you communicate to students on their concern?

Through the Head boy / girl and prefects [ ]

Through the class teacher [ ]

They come individually to your office [ ]

Other (please explain)_____

27 How many teachers have joined your school this year?

One [ ] Two [ ] More than two [ ] None [ ]

28 How many teachers have left your school this year?

One [ ] Two [ ] More than two [ ] One [ ]

29 How do you plan for maintenance of physical facilities in your school?

The school has maintenance workshop [ ]

The school has skilled maintenance employee[s] [ ]

The school has an established maintenance inventory book [ ]

The school has laid down maintenance strategies [ ]

30 What structure do you have for maintenance and replenishment of physical facilities and learning resources?_____

31 What challenges do you face in maintenance of physical facilities in your school?

_____

Thank you.

APPENDIX C

QUESTIONNAIRE FOR THE TEACHERS

Please you are requested to spare sometime and respond to all the questions. The responses you give shall be treated with confidence. You are therefore asked not to write your name or any other form of identification.

SECTION A

DEMOGRAPHIC INFORMATION

1. What is your gender?

   Male [ ] Female [ ]

2. What is your age?

   21-25 years [ ] 26-30 years [ ] 31-35 years [ ] 36-40 years [ ] 41-45years [ ]

   46-50years [ ] 51 and above years [ ]

3. What is your highest professional qualification?

   P1 certificate [ ]B. Ed [ ] BA [ ]BA (with PGDE) [ ] B.Sc [ ]

   B.Sc with PGDE [ ] M. Ed [ ] Other _____

4. For how long have you been teaching?_____

5 Which is your department?

   Language [ ] Math and Science [ ] Humanity [ ] Creative Arts / Technical [ ]

6. What is the school vision?_____

7. What is the school mission?_____

8. When do you complete the syllabus for every subject?

   Same year per class [ ] When in the next class [ ]

9. In your experience what are the four most important factors that influence student's subject choice in your school. Rank them from number one [1] to four [4]

   Student ability [ ]

   Allowed subject combination [ ]

   Student interest [ ]

   Subject teacher [ ]

   Parent's direction [ ]

   Others [Please explain]_____

SECTION B

MAINTENANCE OF PHYSICAL FACILITIES AND LEARNING RESOURCES

Please indicate the extent to which you agree or disagree with the following statements by putting a tick [ ]. Respond by considering how well each statement applies to your principal's leadership and maintenance of physical facilities and learning resources.

KEY

1 SA-Strongly agree 2 A-Agree 3UN-Uncertain 4 D-Disagree 5 SD.-Strongly disagree

	SA	A	UN	D	SD
10. The principal complements teachers					
11. The principal warm					
12. The principal encourages teacher autonomy					
13. The principal goes out of his or her way to help teachers					
14. The principal supervises teachers closely					
15. The principal listens to and accepts teachers suggestions					

16. The principal encourages teachers to work toward common school goals					
17. The principal involves teachers in decision-making process					
18. The principal provides for extended training to develop my knowledge and skills relevant to being a member of the school					
19. The principal is accessible when needed.					
20. The principal helps develop student responsibility					
21. School facilities and resources are availed					
22. The principal enjoys working with students					
23. School facilities and resources are constantly replenished and maintained.					
24. The principal involves students in decision making.					
25. The principal stimulates teachers to think about the welfare of the students					
26. The principal encourages student leadership.					
27. The principal encourages students to choose particular subjects than others.					

SECTION C

TEACHER, S-STUDENT SUPPORT AND CARE

Please indicate the extent to which you agree or disagree with the following statements by putting a tick [√]. Respond by considering how well each statement applies to teacher's support and care for the students in your school.

KEY

1 SA-Strongly agree 2 A-Agree 3 UN-Uncertain 4 D-Disagree 5 SD.-Strongly disagree

	SA	A	UN	D	SD
28. I stay after school to tutor students who need my help					
29. Students agree to be given extra tuition.					
30. The students depend on me for advice					
31. I accept additional duties if students will benefit					
32. I like students who answer my questions in class.					
33. Students who have a problems at home are likely to ask for my help.					
34. I avoid asking questions to students who do not perform in my subject.					
35. I would describe my relationship with the students as positive					
36. I frequently report students to the principal when I disagree with them.					
37. Some students are very frustrating in class.					
38. I discourage weak students from choosing my subject.					
39. I like the students					

THANK YOU

APPENDIX D

STUDENTS' QUESTIONNAIRE

Please you are requested to spare sometime and respond to all the questions. The responses you give shall be treated with confidence. You are therefore asked not to write your name or any other form of identification.

SECTION A: DEMOGRAPHIC INFORMATION

1. What is your gender

   Male [ ] Female [ ]

2. What are your age years _____

3. How does a student in your school learn what is required of them to be in the school

4. List down three things a visiting student would like about your school?

   _____

5. How did you choose your subjects?

   I chose according to my ability

   Subject teachers advised me on what to choose

6. When did you choose the subjects

   During admission in Form one

   While in Form one third term

   While in form two second term

7. How many times are you permitted to see the principal when facing a problem?

   Once [ ] any time [ ] none at all [ ]

8. Why did you choose the subjects you have?

   Most of my friends chose the subject

The instruments in the laboratory for science subjects are well kept

I shall get teachers attention

The learning resources and physical facilities are well maintained

9. The list given shows the subjects that students are taught. It includes both compulsory and optional subjects. Put a tick [√] to the subjects you chose to do in form three.

Compulsory subjects
Group 1: Math [ ] English [ ] Kiswahili [ ]
Optional subjects
Group 2: Physics [ ] Biology [ ] Chemistry [ ]
Group 3: Geography [ ] History and government [ ] C.R.E[ ] I.R.E [ ] H.R.E. [ ]
Group 4: Business studies [ ] Home science [ ] Art and Design [ ] Agriculture [ ]
Woodwork [ ] building Construction [ ] Power mechanics [ ] Electricity [ ]
Drawing and design [ ] Aviation Technology [ ] Computer Studies [ ]
Group 5: French [ ] German [ ] Arabic [ ] Kenya Sign Language [ ] Music [ ]
Business studies [ ]

SECTION B

TEACHER, S-STUDENT SUPPORT AND CARE

Please indicate the extent to which you agree or disagree with the following statements by putting a tick [√]. Respond by considering how well each statement applies to the support and care you get from the teachers in your school.

KEY

1 SA-Strongly agree 2 A-Agree 3 UN-Uncertain 4 D-Disagree 5 SD.-Strongly disagree

	1-SA	2-A	3-UN	4-D	5-SD
10. I can talk to my teachers about my problems					
11. My teachers care about me					
12. Teachers help students with social problems					
13. Teachers believe I can do well					
14. I chose the subjects taught by teachers who care for me					
15. My teachers make me feel good about my self					
16. Teachers work hard to get me do well on tests					
17. I chose the subjects taught by teachers who spend more time with me after class.					
18. I chose subjects taught by teachers of my gender except where I could not avoid.					
19. I prefer telling my problems to the female teachers than to male teachers.					
20. Most male teachers are very harsh					

SECTION C

MAINTENANCE OF PHYSICAL FACILITIES AND LEARNING RESOURCES

Please indicate the extent to which you agree or disagree with the following statements by putting a tick [√]. Respond by considering how well each statement applies to the principal's leadership and maintenance of physical facilities and learning resources in your school.

KEY

1 SA-Strongly agree 2 A-Agree 3 UN-Uncertain 4 D-Disagree 5 SD.-Strongly disagree

	1-SA	2-A	3-UN	4-D	5-SD
21. The principal gives students a chance to help make decisions					
22. The principal has a process through which all students know the school rules					
23. The principal enjoys working with the students					
24. Students feel free to initiate communication with the principal					
25. Students in the school view the principal as a caring leader					
26. The principal discusses school-related problems with the students and seeks their opinions and feelings about the problem					
27. The principal repairs school facilities on time when they get spoilt					
28. The principal has set rules on how students should take care of physical facilities and learning resources in school					

THANK YOU

APPENDIX E

OBSERVATION CHECK LIST

Learning facilities and resources	Maintained	Moderate	Unmaintained
Dormitories (if applicable)			
Classrooms			
Playing ground			
Library			
Chairs			
Staffroom			
Administration offices			
Dining hall			
Laboratories			
Desk			
Toilets			
Departmental offices			
Learning resources			
Teachers text books			
Teachers guides			
Students textbooks			
Charts and maps			

APPENDIX F

PRINCIPALS' QUESTIONNAIRE ITEM STATISTICS

Item	Mean	Std. Deviation	N
Sex of respondent	1.70	.466	30
Highest professional qualification	3.87	1.776	30
Years of service as a Principal	2.63	2.189	30
Category of school headed	4.60	2.298	30
Maintenance of dorms	2.07	1.172	30
Maintenance of chairs	1.90	.548	30
Maintenance of school laboratories	1.83	.699	30
Maintenance of the desks in the school	1.73	.691	30
Maintenance of toilets in the school	1.73	.640	30
Maintenance of teachers textbooks	1.60	.724	30
Maintenance of teachers guides	1.53	.629	30
Maintenance of students texts in the school	1.80	.805	30
Maintenance of charts & maps	2.13	.776	30
Outsourcing for physical & learning facilities	2.87	1.042	30
Frequency of staff meetings	2.07	1.143	30
How students select subjects for KCSE	2.53	1.074	30
Communication of students concern	2.43	1.223	30
No of teachers joining the school in a year	2.63	1.066	30
No of teachers transfer in a year	2.40	1.192	30
Facilities & resource maintenance planning	3.03	1.542	30

APPENDIX G

TEACHERS' QUESTIONNAIRE ITEM STATISTICS

Item	Mean	Std. Deviation	N
Highest professional qualification	3.15	1.612	120
Years of service as a teacher	3.70	1.648	120
Principal complements teachers	3.93	.852	120
Principal is warm to teachers	1.87	.721	120
Principal encourages teachers autonomy	2.00	1.013	120
Principal help to teachers	1.88	.758	120
Principal closely supervises teachers	2.75	1.063	120
Principal listens and accepts teachers suggestions	2.13	.888	120
Principal encourages teachers towards school goals	1.73	.896	120
Principal involves teachers in decision making	2.12	.780	120
Principal encourages teachers to train	2.00	.889	120
Principal is accessible whenever need arise	1.83	.999	120
Principal helps develop responsibility among students	2.03	1.053	120
Facilities and resources made available	1.73	.594	120
Principal enjoys working with students	1.86	.813	120
School facilities and resources constantly replenished and maintained	2.44	.960	120
Principal involve students in decision make	2.31	.877	120
Principal stimulate teachers to think on students' welfare	1.81	.813	120
Principal encourages students leadership	1.79	.849	120
Principal encourages students to choose particular subjects	3.18	1.328	120
Teacher stay back to tutor students	1.96	.965	120
Students agree to get extra help	2.19	1.007	120
Students depend on teacher for advice	2.02	.809	120
Teacher accepts extra duties	1.64	.807	120
Teacher likes students who answer questions	1.65	.913	120
Students with home problems likely to seek help	2.28	1.014	120
Positive teacher-students relationship	1.63	.636	120

APPENDIX H

STUDENTS' QUESTIONNAIRE ITEM STATISTICS

Item	Mean	Std. Deviation	N
How students choose subjects	2.0103	.40601	390
Student can talk to teacher on personal problems	2.7249	1.40284	390
Teachers care about student	2.2982	1.10692	390
Teachers believe student can do well	1.8123	1.06889	390
Teachers makes student do well	3.5219	1.45292	390
Teacher makes student feel good	2.6272	1.29128	390
Teacher work hard for student to do well	2.0720	1.19706	390
Choose subjects with extra time offered by teachers	4.0231	1.17402	390
Students given chance in decision making	2.7044	1.54069	390
Process of students knowing school rules	1.9563	1.11487	390
Principal enjoy working with students	2.3213	1.19150	390
Students initiates communication with principal	2.9280	1.41784	390
Principal seen as caring leader	2.4884	1.41712	390
Principal discuss school problems with students	2.9897	1.48355	390
Principal ensures timely repair of facilities	2.7584	1.47250	390
Students should take care of facilities	2.0437	1.15796	390
Student's Subject choice science	3.6761	.46857	390
Student's Subject choice humanity	4.2622	.46322	390
Student's Subject choice creative arts	30.9023	1.01571	390

APPENDIX I

LIST OF PUBLIC SECONDARY SCHOOLS IN NAIROBI COUNTY, KENYA

NAME OF SCHOOL

STAREHE DISTRICT

1. Jamhuri Secondary
2. Muranga Road Boy's
3. Ndururuno Secondary School
4. Ngara Girls Secondary School
5. Pangani Girls Secondary
6. Parklands Boys' Secondary
7. Pumwani Boys, Secondary
8. Pumwani Girls' Secondary
9. Starehe Boys' Centre
10. St. Teresa's Girls' Secondary

KAMUKUNJI DISTRICT

11. Eastleigh Secondary School
12. Kamukuji Secondary School
13. Maina Wanjigi Secondary
14. Moi Forces Academy
15. OLM – Shauri Moyo Secondary
16. St. Theresa's Boys Secondary
17. Uhuru Secondary School

KASARANI DISTRICT

18. Baba Dogo Secondary School
19. Kahawa Garrison Secondary
20. Kamiti Secondary
21. Kariobangi North Girls Secondary
22. Ourlady of Fatima Secondary
23. Ruaraka High School
24. Starehe Girls' Centre
25. Garden Estate Secondary

MAKADARA DISTRICT

26. Aquinas High School
27. Buruburu Girls Secondary
28. Highway Secondary School
29. Huruma Girls' Secondary
30. Makongeni Secondary
31. Nile Road Girls Secondary
32. OLM-South B Secondary School
33. Ofafa Jericho Secondary
34. St. Anne's Girls Jogoo Road
35. St. Patrick Secondary

NJIRU DISTRICT

36. Dandora Secondary
37. Dr. Mwenje Secondary
38. Drumvale Secondary
39. Jehova Jireh Secondary
40. Muhuri Muchiri Secondary
41. St. Georges Athi Secondary
42. Ushiriki Secondary
43. Ruai Girls Secondary
44. Ruai Boys Secondary

EMBAKASI DISTRICT

45. Embakasi Garrison Secondary
46. Embakasi Girls' Secondary
47. The Komarock School
48. Kayole South Secondary
49. Mwangaza Secondary
50. Peter Kibukosya
51. Utawala Secondary
52. Mihango' Secondary

WESTERN REGION

53. Karen C Secondary
54. Langata Barracks Secondary
55. Langata High School
56. Olympic Secondary
57. Rail Education Centre

DAGORETTI DISTRICT

58. Dagoretti High School
59. Dagoretti Mixed Secondary
60. Lenana School Nairobi
61. Moi Girls' School Nairobi
62. Mutuini High School
63. Nembu Girls' Secondary
64. Precious Blood Riruta
65. Ruthimitu Girls' Sec
66. Ruthimitu Mixed Sec
67. Upper High School
68. Shadrack Kimalel
69. Beth Mugo Secondary.

WESTLAND DISTRICT

70. Hospital Hill High School
71. Highridge Secondary
72. Kangemi High School
73. Kenya High School
74. Lavington Secondary
75. Nairobi Milimani Secondary
76. Nairobi School
77. Parklands Arya Girls Secondary
78. St. Georges Girls Secondary
79. State House Girls' High School

APPENDIX J

RESEARCH AUTHORIZATION

REPUBLIC OF KENYA

HARAMBEE

NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY

Telephone: 254-020-2213471, 2241349, 254-020-2673550
Mobile: 0713 788 787 , 0735 404 245
Fax: 254-020-2213215
When replying please quote
secretary@ncst.go.ke

P.O. Box 30623-00100
NAIROBI-KENYA
Website: www.ncst.go.ke

Our Ref: **NCST/RCD/14/013/1256**

Date: **9th July 2013**

Mercy Wambui
Maasai Mara University
P.O Box 861-20500
Narok.

RE: RESEARCH AUTHORIZATION

Following your application dated **8th July, 2013** for authority to carry out research on "***Influence of school climate on students' subject choice in public secondary schools in Nairobi County, Kenya.***" I am pleased to inform you that you have been authorized to undertake research in **Nairobi County** for a period ending **31st December, 2013.**

You are advised to report to **the County Commissioner and County Director of Education, Nairobi County** before embarking on the research project.

On completion of the research, you are expected to submit **two hard copies and one soft copy in pdf** of the research report/thesis to our office.

DR. M. K. RUGUTT, PhD, HSC.
DEPUTY COUNCIL SECRETARY

Copy to:

The County Commissioner
The County Director of Education
Nairobi County

OFFICE OF THE COUNTY COMMISSIONER
RECEIVED
12 JUL 2013
NAIROBI COUNTY

Noted

COUNTY DIRECTOR OF EDUCATION
12 JUL 2013
MINISTRY OF EDUCATION
Recd for

APPENDIX K

RESEARCH PERMIT

PAGE 2

THIS IS TO CERTIFY THAT:
Prof./Dr./Mr./Mrs./Miss/Institution
Mercy Wambui
of (Address) Maasai Mara University
P.O Box 861 20500, Narok
has been permitted to conduct research in

Location
Nairobi District
County

on the topic: influence of school climate on students' subject choice in public secondary schools in Nairobi County, Kenya

for a period ending: 31st December, 2013

PAGE 3

Research Permit No. NCST/RCD/14/013/1256
Date of issue 9th July, 2013
Fee received KSH. 2000

Applicant's Signature

For Secretary
National Council for Science &Technology

CONDITIONS

1. **You must report to the District Commissioner and the District Education Officer of the area before embarking on your research. Failure to do that may lead to the cancellation of your permit**
2. **Government Officers will not be interviewed with-out prior appointment.**
3. **No questionnaire will be used unless it has been approved.**
4. **Excavation, filming and collection of biological specimens are subject to further permission from the relevant Government Ministries.**
5. **You are required to submit at least two(2)/four(4) bound copies of your final report for Kenyans and non-Kenyans respectively.**
6. **The Government of Kenya reserves the right to modify the conditions of this permit including its cancellation without notice**

GPK6055t3mt10/2011

REPUBLIC OF KENYA

RESEARCH CLEARANCE PERMIT

(CONDITIONS—see back page)